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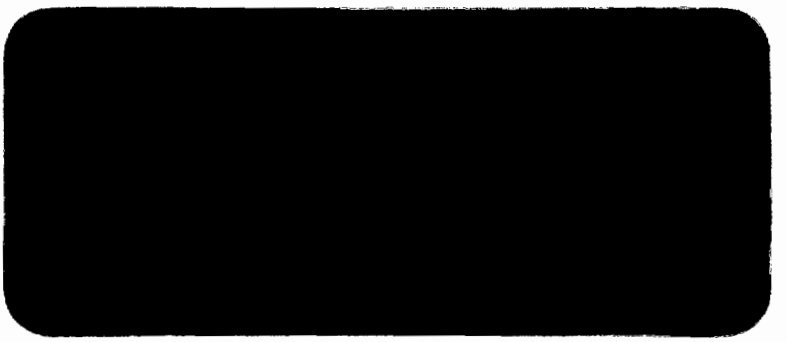

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Determinants of Educational Achievement and Attainment in Africa

An Evaluation Of Save The Children's Community Schools Project in Kolondieba, Mali

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February 1997

With universal basic education beyond the modest means of most developing countries, they and their development partners are looking increasingly to local communities for vital inputs. Save the Children/Mali's community school project constitutes an interesting version of this approach, with local school management, local villagers with limited to no formal schooling as (low-paid) teachers, local language instruction, parity in girls' recruitment and other innovations. The level of learning by community school students matches that in government schools in arithmetic and is better in reading and writing (of the local language). Classroom management and enrollment and retention also seem better. Although still not great, the level of community school committee and parental involvement seems notably greater than in government schools. Despite these favorable results, it is highly doubtful that students completing a six-year community school cycle will be prepared to enter the government's formal school track, taught in French. The community school teachers are incapable of bringing their students French ability to a suitable level, due to their own poor mastery. This and other issues - notably, suitable remuneration for teachers, improving the school committees' abilities, and defining better a role for government school authorities and technicians - must be resolved before the model is replicated on a massive scale and before long-term sustainability may be ensured.

Acknowledgments: Unbounded gratitude is due to the many individuals from these institutions and from The Florida State University for their considerable contributions at the different stages of this study. Specifically, thanks are given to James Freeman for his abundant, beyond-the-call-of-duty work on the statistical analysis of the quantitative data, to Kim Camara and Kip Harkness for their data entry efforts, to Ron Ridker, Joe DeStefano and Elizabeth King for their generous, important feedback on the different versions of the evaluation plan and report. Enormous thanks are also due to Save the Children's field staff who facilitated the many logistical aspects of the evaluation, and especially to the IPN and Save the Children collaborators on the field evaluation task: Drissa Diarra, Solomani Sangaré and Moussa Siddibé, of IPN's *Division des Recherches et Innovations Pédagogiques*, Morifing Cissé, Dounamba Fané and Mamadou Traoré, of IPN's testing and measurement unit and Fatoumata Coulibaly N'Diaye of Save the Children/Mali and Carrie Auer of Save the Children/Westport.

AN EVALUATION OF SAVE THE CHILDREN'S COMMUNITY SCHOOLS PROJECT IN KOLONDIEBA, MALI

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Executive Summary

Though their commitment seems firm, the challenge of achieving universal basic education seems increasingly elusive for developing countries, with the number of children continuing to grow rapidly at the same time that governments' capital resources become more scarce. As a response, these governments and their international development partners seem to rely more and more on local participation to provide resources to compensate for these growing shortfalls.

In 1992, Save the Children/Mali, supported by USAID and in collaboration with the Ministry of Education, launched a project designed to bring full education coverage to the district of Kolondiéba, in southern Mali, by the year 2000. In every village without a government school, Save the Children will join in a tightly defined collaboration with the community to start a local school, with instruction in the local language (Bamanan) and a curriculum that emphasizes local knowledge. Save the Children will provide certain construction items, a curriculum, pedagogical materials, teacher training, and monitoring and support. The community will build a one-room school, recruit two teachers who are literate in Bamanan (the local language) from the village, pay each a monthly salary of at least 3000 FCFA (US$ 6.00), send to school daily for two to four hours, five or six days a week, and seven months two groups of children, each comprising 15 boys and 15 girls, and organize a school management committee that is responsible to monitor and support the proper operations of the school.

USAID/DC enlisted the Institute for Policy Reform to conduct an evaluation in 1996 of this project, with the general purpose of assessing if it constitutes a model with elements that are worthy of widespread replication. This determination rested largely upon three specific questions: (i) do the community schools dispense a "quality" education; (ii) does the community management aspect function adequately; and (iii) will the students from the community schools be prepared to continue their schooling at the next level in the government school system, where teaching is in French? The question of long-term sustainability is also treated more directly, as even positive findings concerning the three central questions lose significance if there is little likelihood of continued success after Save the Children and USAID end their support.

The actual implementation of the evaluation involved also researchers from Mali's Ministry of Education (under contract to Save the Children) and from Save the Children. This group designed fourteen separate instruments to generate a multi-dimensional, quantitative and qualitative assessment of the project. These included three tests — of language (French in the government schools and Bamanan in the community schools), arithmetic and local knowledge —, questionnaires to generate data on the students, the

students' households, the teachers the schools, the school management committees, and the communities, and interview guides for a deeper understanding of the school management committee, classroom teaching, and the communities' and parents' views on the school and their children's education. The evaluators employed these instruments in third and fourth grade classrooms in thirteen community and twelve government schools and villages in the district of Kolondiéba. They also used these in three schools operated by local partner NGOs in a neighboring district to look at how well the model's dissemination is occurring.

The test results show that learning in the community school classroom is at least as strong as that in the government school classroom. The former group of students outperformed significantly and convincingly (almost 40 percent better) their government school counterparts on the language test (expected since they were tested in their maternal language) and scored equally well on the arithmetic test. This is particularly noteworthy given the vastly poorer qualifications of the community school teachers. The local knowledge test also yielded similar scores for the two groups, though this outcome may be perceived instead as a criticism of the community school performance. These students should perform better than the government school students since the community school curriculum is ostensibly designed to emphasize this element. Regression analysis indicates that these results cannot be explained by exogenous factors such as innate household or student characteristics that the study was able to measure.

Quality is also measured in other ways, both conventional and more innovative. A comparison of the common internal school efficiency measures of school enrollment, attendance and retention also favors the community schools model, particularly as pertains to girls. Possible explanations for this are found in the testimony by community school parents that they prefer enormously not having to send their child to another village for schooling, and they appreciate the fact of instruction in the local language on locally relevant topics. Looking at the external impacts of the two schools, both seem to promote similar traits and development-associated activities among the students at home, though certain features do seem to be more prevalent for the community school students. In the classroom, the teachers' classroom management strategies also overlap in many dimensions, with both groups highlighting "teacher-centered" approaches. However, the community school teachers seem fortunately less talented at this, exhibiting other tactics and behaviors that are more "child-centered" and are consequently more likely to promote confidence, curiosity, comfort and commitment in their students.

The school committees and parents in the community school villages exhibit a much more proactive approach in their attitudes and actions as regard the school. While the skill and breadth of intervention they bring to this role is still relatively undeveloped, it is clear that in the large majority of cases they perceive the school and the teacher as their responsibility and fulfill a regular monitoring and support function. One weak aspect where Save the Children will not "pick up the slack" for the community is that of frequent late payments of the teachers' salaries. While some villages have more than doubled the minimum salary level required by the model, most have made only modest increases, if any at all. The late payments and, particularly, the very low salary level will

very likely jeopardize not just the medium to long-term sustainability of the project, but also the short-term viability of a school in many villages.

Sustainability of the model, as well as of individual schools, will also be subject to the eventual opportunities that occur for the students that graduate from the community school. On the one hand, the villagers and the government will look to see how well these students do as they proceed to the next level of formal schooling in the government's upper primary cycle (grade seven). These prospects are presently very dim. While the test results indicate that the community school students are mastering equally well as their government school counterparts the basic content of the primary curriculum, they are not learning sufficient French, the medium of instruction in the government school system. The literature, and the test results, suggest that a very solid foundation for learning French is being established, but the current community school teachers are incapable of building on this. Some alternative, complementary approach is necessary and is currently being discussed by Save the Children and the government.

On the other hand, it does very little good to deliver a high quality education in Bamanan, or in any other language for that matter, if the opportunities to employ that education fruitfully do not exist. As the large majority of the community school students will not proceed to the government school system, likely by choice in most cases, these opportunities must be created in the students' own villages. In particular, former students will seek productive work, social and nonformal education and training activities that will permit them to excel individually and to contribute to the development of their families and community thanks to their literacy, arithmetic and other school-acquired competencies and attitudes. Clearly, the establishment of these complementary conditions requires interventions in other domains. Save the Children demonstrates this systemic approach quite effectively with its village-level interventions in such areas as health care, agricultural technology, small-scale savings and credit, and adult literacy. The evidence that community school students are already employing their academic and cognitive abilities to take advantage of these programs for their and their families benefit exemplifies the importance of this manner of complementary approach. Schooling without such options would be every bit as wasteful as creating opportunities without teaching people to take advantage of these, and perhaps even more frustrating.

As regards the central question of the present evaluation, "Is it time to 'take the show on the road'?," a tentatively affirmative response is possible. For one, students seem to be acquiring a set of functional cognitive and academic skills that coincide with the major aspirations that most of their parents assign to a formal education. Two, the school management committees exhibit a serious attitude towards their management role. Three, a foundation for learning in French is being created. Taking a more systemic view, the rapid expansion of the model to neighboring districts is quite promising, especially as much of this is managed with apparent success by a group of national partner nongovernmental organizations. The increasing role of the regional government education authorities and technicians is also promising. Notwithstanding, there are some important shortcomings as well associated with each of these dimensions. In addition, it has yet to be determined that the most important practical dimension, cost, truly favors this model, though this appears to be the case based on a more casual calculation.

While further expansion of the model does seem indicated, extensive dialogue and efforts must occur to resolve the different major problem areas — most notably, the level teachers' salaries, the operations of the school management committees, ensuring adequate French instruction for those hoping to proceed, and improving basic instruction.

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Introduction

The last decade of the twentieth century has brought a renewed call among the developing nations for Universal Basic Education (UBE), replicating the international summon of the 1960's Independence period. At the Jomtien Conference on Education for All, March 1990, it was declared formally by the delegates that 'Every person — child, adolescent and adult — must have the opportunity to benefit from a training conceived to satisfy his/her fundamental education needs" (WCEFA, 1990 — author's translation). As developing countries and their international partners apparently rededicate themselves to this goal, they continue to face the same enormous constraints that have made the achievement of UBE so elusive for nearly four decades: rapidly growing populations, severely limited finances, inadequate teaching corps and inefficient management systems, to name just a few. Though pedagogical innovations and a reallocation of resources have yielded some access gains in many countries — e.g., Guinea (cf. Condé, 1996) —, past experience yields the conclusion that such government efforts can really only make a small dent in the overall demand for new school places.

One strategy has emerged in many countries that appears to hold true promise for effecting a considerable impact upon the goal of UBE. This is the reliance on local participation as an integral element in the provision of basic education, an approach that has received increasing attention from both national governments and their international assistance partners. Occurring under several guises and motivated by a wide variety of circumstances in different locations, local initiative in the provision of education has supported formal education for children in many situations where governments have been unable to do so. At one extreme, the government seeks the community's financial (and/or in-kind) contribution to complement its own investments in providing, and controlling, primary schooling; e.g., the USAID and World Bank-funded school construction project in Mali (Muskin, *et. al.*, 1993:31-4). At the other extreme is the case of Chad, where local communities confronted a virtual vacuum as regarded government involvement in primary schooling during the civil war period by creating, financing and managing their own schools completely independently (Fass, 1991; Esquieu and Péano, 1994).

While it is surely unreasonable and undesirable to exonerate a national government fully of its fiscal, administrative and technical responsibility to guarantee the basic human right of education, the current reality in most developing countries (and virtually all of Africa) seems to be that the only chance to approach UBE is for communities to assume a share (sometimes the lion's) of the costs and management of schooling. As experiences with local participation (and relatedly, decentralization) accumulate, there is increasing opportunity to identify domains where national governments, donors and local communities may truly collaborate in the creation and operation of schools by which to ensure a basic education that satisfies equally well each partner's respective objectives, aspirations and requirements for formal schooling.

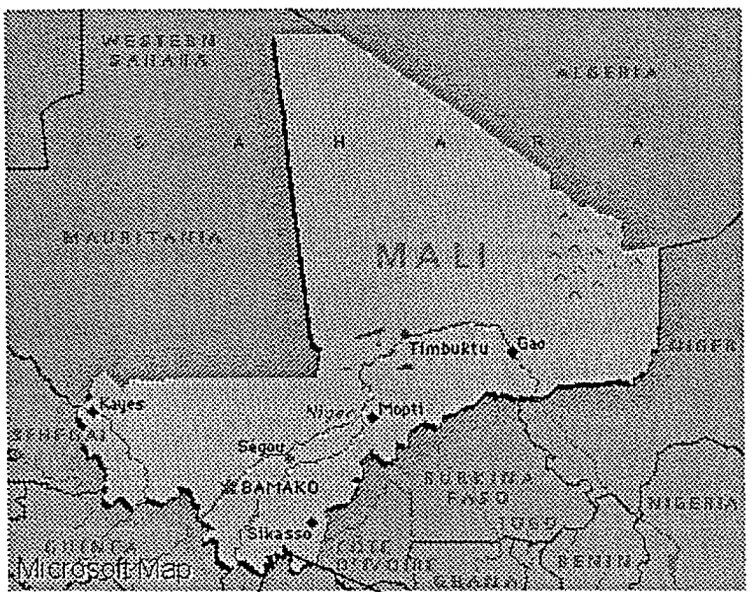
Save the Children's community schools initiative

The North American nongovernmental organization (NGO) Save the Children Federation launched its community school initiative in the *cercle* (district) of Kolondiéba in southern Mali in 1992 (see map, Figure 1). The central purpose of the initiative was to bring a basic education to those communities not reached by the governmental system (cf. Vélis, 1994). Starting with just four schools, the project grew rapidly over the next three years to support the installation of community schools in an additional 75 villages. As a result, Kolondiéba's educational coverage increased from less than 12 percent of the *cercle's* 207 villages (served by government-sponsored formal schools only) to nearly 50 percent coverage (including both government and community schools). In 1994, Save the Children contracted with four local NGOs (with USAID funding) to work with communities to install community schools in 16 different villages of the neighboring *cercle* of Bougouni, four in each of four *arrondissements*, or sub-districts. The following year, the number of schools supported by these "partner" NGOs ballooned to 81, adding *arrondissements*, Malian partner NGOs and the *cercle* of Yanfobila. By the year 1999, Save the Children intends to achieve 75 percent coverage in Kolondiéba, maintaining the operation by villages of 150 community schools and supporting 12 local NGOs in installing and serving schools in 740 villages throughout Sikasso. (See Figure 2.)

The nearly exponential growth of the project may be interpreted to reflect the considerable attraction of this model to the local communities, with both Save the Children and partner NGO officials reporting that demand throughout the region has quickly surpassed their ability to provide villages with the basic education package. The community school model clearly represents for these communities a satisfactory substitute for a formal government school, at least for the present. This growth helps explain as well the strong attraction to the model of the Government of Mali and USAID, one of Mali's leading bi-lateral partners, with the latter providing to Save the Children major funding (US$ 6.8 million through 1999) with which to undertake this massive expansion.

The Save the Children/Mali community school model is built upon a set of basic principles and elements, all destined to accomplish two inter-related goals: (i) provide a fundamental education of quality to children in villages without a formal school; and (ii) ensure a full and capable management of the school by the local population. The framework and principles established by which to attain these goals have evolved over the four years of the project's implementation, in some cases considerably. These are represented as a set of conditions which a community must adopt in order to participate in the program, as follow:

- sixty children enroll in the school, *with equal numbers of boys and girls* between the ages of six and fifteen (changed in the second year to a maximum of twelve years), attending regularly for a full three-year cycle (changed to a six-year cycle as the inaugural cohorts of the initial four schools reached the third year);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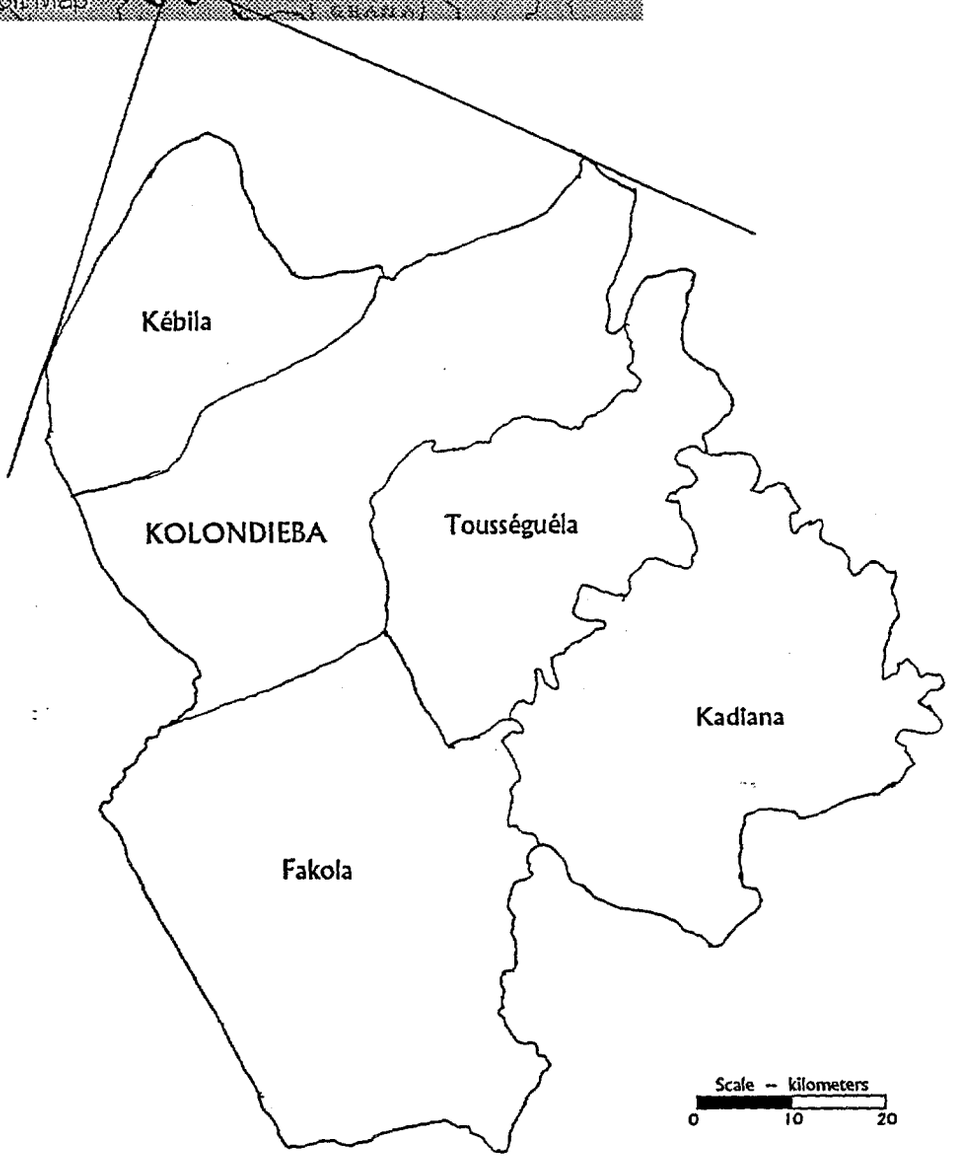
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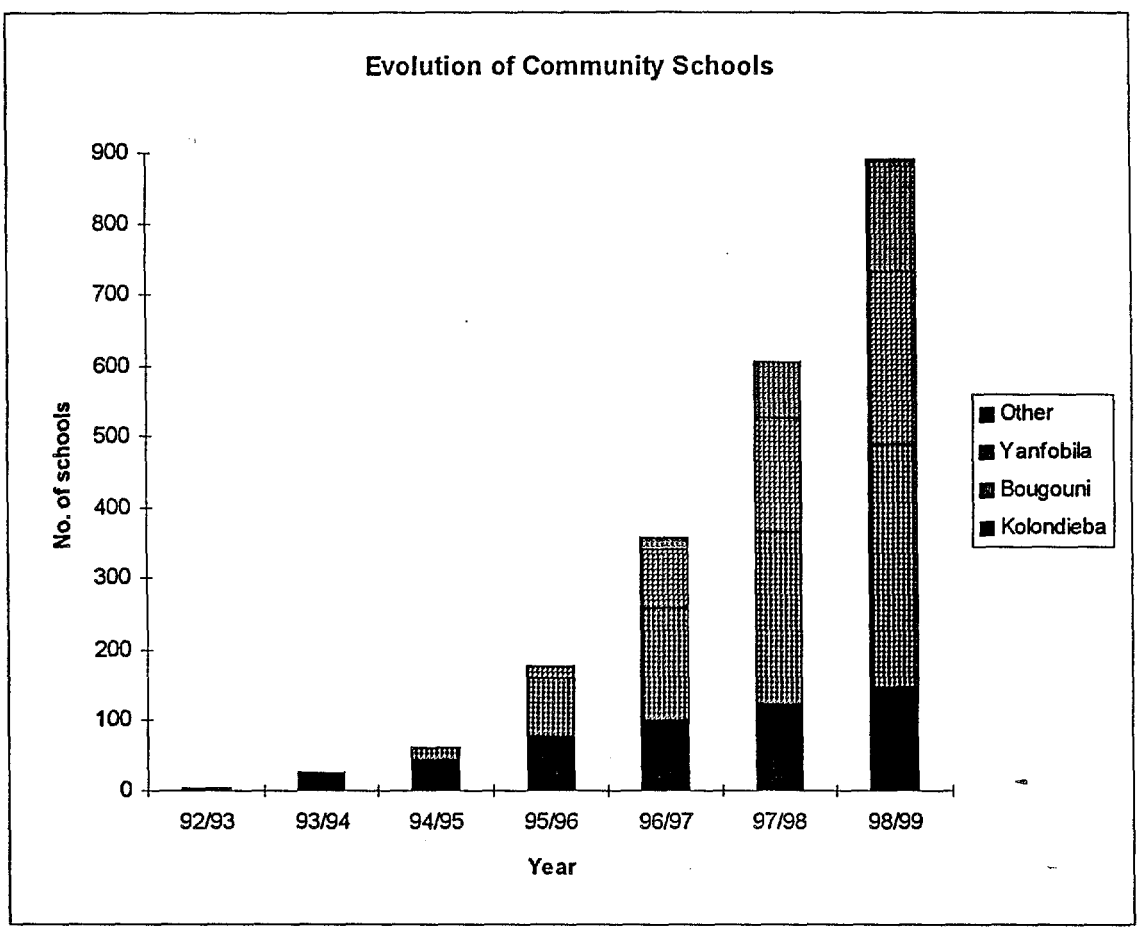
Evolution of Community Schools
900
800
700
600
500
400
300
200
100
0
No. of schools
92/93
93/94
94/95
95/96
96/97
97/98
98/99
Year
Other
Yanfobila
Bougouni
Kolondieba

- recruitment of a new class by the village occurs with the completion of each full three-year cycle[1];instruction is in the local language, Bamanankan (with French added later as a topic in the third year and incorporated increasingly in successive years as a response to a demand for this voiced by the participating communities);
- the curriculum highlights subjects related directly to the clearly expressed education priorities of the village — agriculture, health, credit and entrepreneurship, history and geography — along with written language and mathematics skills;
- the community builds a one-classroom school, with Save the Children, or a respective partner NGO, providing only the materials for a zinc roof, windows, and a door;
- the school operates in two shifts (or "*cohortes*") of equal size — with 15 boys and 15 girls in each — for at least two hours a day, at least five days a week and at least seven months in the year, with the community selecting the actual hours, days and months;
- the community provides at least two literate members from within the village (educated in a formal school or trained in a literacy program) to serve as teachers for the community school;
- the community provides the teacher with a monthly "*motivation*" equivalent to at least 100 FCFA (about US$ 0.20) per student, typically paid as a school fee by the student's parents, or 3000 FCFA (US$6.00) total — other student or community contributions may be added at the discretion of the village;
- the community organizes a Village School Management Committee ("*Comité de Gestion*") comprised of five to eight members (of which two to four are women) to undertake the overall management of the school, including the selection, monitoring and payment of the teacher, communicating to the community-at-large on school-related issues, assuring the attendance of students, organizing the construction and maintaining the cleanliness and good condition of the school

[1] — The intention of this strategy is to permit all children below twelve years to attend school, which outcome can result if all students between ten and twelve years are selected with each new cohort, enrolling younger children to complete the cap of sixty. However, this tactic was not employed. Instead, most villages invoked each family to send one child of their own choice, or more until the total of sixty was reached. Most parents explained that they chose to send to school the child (or children) they believed (intuitively) to be most suited to academic learning. While in some cases this clearly meant a child who was too young to be useful at home or in the fields, this hardly seemed to be the norm as the number of older students was fairly high. (Unfortunately, the student age data includes so many inconsistencies that it does not warrant presentation.) As the program's coverage of villages in Kolondiéba and the neighboring *cercles* increases, there are already villages requesting schools for which the sixty cap will exceed the number of eligible children.

In the end, none of the four inaugural villages recruited a new class with the first group's completion of three years. The village of Dontéréké did begin a second school, but did so at the start of only the second year of the first school's operation.

building and furniture, supporting the academic program, and serving as the official representative to Save the Children and other outside partners on matters relating to the school;

- Save the Children provides all pedagogical materials and furnishings for the school, including school benches, blackboards and a table and chair for the teacher along with the didactic materials — chalk, slates, pens, composition books, rulers, etc. — and texts and other teaching documents ("*les fiches pédagogiques*") for the teacher and the students; and
- Save the Children organizes both (i) annual training (actually provided by trainers from the Ministry of Education's National Pedagogical Institute, IPN — or, as of 1995/96, from the regional Inspectorate) during one month prior to the school year and two weeks of in-service *recyclage* about five months into the academic year, and (ii) weekly monitoring and technical support of all teachers and the *Comités de Gestion*, executed by Save the Children's education assistants.

As a village demonstrates its willingness and ability to meet all of these conditions, Save the Children or one of its partner NGOs will consider it for the installation of a village school. (Recently, Save the Children has shown some flexibility in its enforcement of these conditions, finding that many of the villages not yet covered by the project are unable to satisfy these; for example, few of the remaining villages are able to accommodate the minimum of sixty students rule.)

With its rapid expansion and obvious local attraction in the region, as well as with similar positive experiences in other parts of the country operated by the Government and World Education, another international NGO (discussed below), the Save the Children community school model has achieved over recent years a high degree of acclaim and interest by government, multi-lateral and NGO entities both within Mali and internationally. This recognition is due equally to the model's reputed success as a community-operated initiative, to the indications that students are attaining satisfactorily basic academic skills, and to its apparent operation at a fraction of the cost of the government school. The natural conse quence of this interest is a desire to learn if the model succeeds in providing a "quality" education, at least of a quality that matches that of the government's schools and if, indeed, the true costs are really significantly lower. This interest seems even more salient recently as Mali's Ministry of Basic Education, supported by its major international development partners (most notably, USAID, the World Bank and UNICEF), focuses increasingly on (i) decentralized control of local schools, particularly targeting the financial and/or in-kind involvement of local populations; and (ii) instruction of relevant local content in the local language. The proposed *Nouvelle Ecole Fondamentale* (NEF), introduced by the Minister of Education in 1994 and still being debated by the Government, rests almost entirely upon these two principles (**L'Essor**, no. 12,834, 28 October, 1994; p.8). It is the current Minister of Education's apparent intention to introduce the NEF model on a nationwide basis as soon as possible. The Save the Children community school program offers a great opportunity

to anticipate many of the challenges and much of the promise that the government (and partners) may anticipate from a system-wide introduction of the NEF. At the same time, the community schools address the major current aspirations of parents in about half the villages of Kolondiéba as concern the education of their children and the eventual development of their families and communities: to have a formal school of adequate quality and suitable content that their children can attend while living at home. An evaluation of the actual level of success with which these aspirations are being met by the community schools should hold important lessons both for Mali and likely for the rest of the developing world as all nations seek a quality basic education for all.

Goals & objectives of the evaluation

The current evaluation of the Save the Children community schools project was organized jointly by Save the Children[2] and by the US-based Institute for Policy Reform (IPR), the latter operating under contract to USAID's Human Resources and Democracy Division of the Office of Sustainable Development, Bureau for Africa. The evaluation was implemented jointly by the National Pedagogical Institute (IPN) of Mali's Ministry of Education and IPR, with Save the Children agents (both Malian and from the United States) playing significant direct roles in both the preparatory and the implementation phases of the study. (This participatory aspect was important as regards both the scope and accuracy of the evaluation.) The field research portion of the evaluation occurred during March and April, 1996.

The central goal of the study was to see if the community school model implemented in Kolondiéba offers a viable means for expanding access to a basic education of acceptable quality on a national scale, as well as in other developing countries on the African[3], and other, continents. The Malian government, Save the Children and USAID expressed particular interest in three specific related questions which they see as fundamental to this goal. These comprised the evaluation's major objectives:

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[2] — The direct participation of Save the Children as an joint organizing and collaborating institution in this evaluation may appear to some to detract from the effort's objectivity. Yet, to the contrary, the role played by Save the Children and its Malian staff brought to the evaluation a thoroughness and depth that would never have existed with a strictly "objective" study, representing the best tradition of Third Generation and Participatory Evaluations (Guba & Lincoln, 1989). This involvement yielded access to documents, to internal insights and to participating villages and other beneficiary informants that would have been much more difficult under the guise of an objective, external evaluation. Save the Children approached the study with a sincere interest in learning where the project was failing and succeeding, bringing at times a level of self-criticism that surpassed the criticism brought by the outside evaluators. This real interest in getting to the "truth" was perhaps most plainly evident in Save the Children's selection of IPN, a government entity with no reason to favor the Kolondiéba project, to undertake Save the Children's part of the activity.

[3] — In this vein, the bureau funded evaluations of similar community school initiatives in Malawi (another Save the Children project) and in Kenya (an Aga Khan Foundation project).

i. Is there "suitable" learning occurring in the project schools (conclusions on this matter relate both to what is considered "suitable" and, more practically, to measures of learning for similar student populations studying in the government's formal school system), and if so, to what degree is the achievement of learning attributable to school characteristics as opposed to socio-economic and other contextual factors?

ii. Does the community school management model ensure a viable, effective and sustainable level of monitoring, finance, operation and direction of the local school? and

iii. What is the likelihood of the community school model's serving as a reasonable springboard for its graduates to enter and perform successfully within the government's formal school system at the upper primary level and, in the event that the likelihood is low, what are the associated weaknesses and what measures might be adopted to improve this bridging ("*passerelle*") option?

The present report begins with an investigation of the first of these questions — is "suitable" learning occurring —, presenting data and inferring conclusions from both a conventional and a more critical perspective. Indeed, this question comprises the most involved element of the overall study. The conventional slant covers essential school outcome criteria, starting with basic measures of learning in language and arithmetic. These results are viewed both independently as a criteria-based assessment of the performance of the community school students on a pair of tests related to specific desired learning outcomes and as a norm-referenced comparison, contrasting the community school student's test results to those of a similar population of students from the government school system. The conventional angle also entails basic school efficiency measures, comparing enrollment, retention and attendance figures for the two groups. Looking both at effectiveness (performance) and efficiency, the study includes a special focus on these outcome measures for girls.

The critical perspective is represented as an investigation of alternative ways of ascertaining what constitutes "suitable," or "quality," learning and whether or not it is occurring. This viewpoint moves the discussion beyond an assessment of whether academic lessons are being mastered by the students to an attempt to determine if the students are able to apply their school lessons in meaningful ways to practical tasks within their home environment. The evaluation of the Save the Children community school program necessitated this particular vantage as the model's curriculum emphasizes lessons of direct relevance to each village's immediate social, economic and cultural milieu and aspires explicitly to preparing children to contribute productively to their home and community lives upon completing the community school program.

In seeking to explain the different results, the report employs a series of basic regression analyses. These were designed to determine to what extent the different performance outcomes for the two groups of students are attributable to the different school models and how much outside household and community factors serve to explain

any differences. More qualitative explanations for the community schools performance are sought within the specific technical features of the community school model; most prominently the curriculum, pedagogical materials, the choice of Bambara as the language of instruction, the qualifications and training of teachers recruited from the community, and community-run school management.

Indeed, the natural presumption is that the community school students will perform less well than their government school counterparts, for two essential reasons. First, the academic and pedagogical qualifications and experience of the community school teachers are vastly inferior to those of the government school teachers, as shown in Table L, on page 42. Second, with basically similar features (most of the differences in means are less than 15 percent), some significant differences between the two sets of villages do occur (see Table A) which would seem in most cases to favor the government school students' learning. Specifically, the government school villages have a greater average size, a larger average number of French speakers per household, and higher average numbers of household members with upper primary and secondary level schooling.

However, this presumption does not hold true. To the contrary, the evaluation results show that the level of learning achieved by the community school students is equal or superior to that occurring in the government schools. While certain methodological matters may provide reason to question somewhat this result, the conclusion that the community schools are providing education of a suitable quality, at least when compared to the government schools, is hard to refute.

In turning to the second objective of the evaluation, the report treats the community school management approach not as an independent variable to help explain student test scores but as a direct and purposeful product of the Save the Children intervention. Essentially, the evaluation was designed to try to determine the degree to which the local community structure succeeds in satisfying the condition of school management. Taking a more long-term vantage, this objective entails as well the question of the sustainability of the model: Will the community management model be able to sustain its operation of local schools and ensure an equal or greater level of learning after Save the Children's and its partner NGOs' involvement ends? Will the community school continue to function adequately, or even at all, once outside funding and material and technical support end, or are transferred to the government?

The report concludes with a look at the implications of the evaluation findings for the model's evolution. This concerns both the third objective above — the *passerelle* — and more broadly the prospect of replicating the community school format on a national, and international, scale, the central goal of the evaluation. These conclusions rely more on the internal assessment of the project than on the comparison of student performance for the community school and government school sample groups.

Table A — Comparison of village & household characteristics

Variable	Save Villages N	Save Villages Mean (s.d.)	Gov't Villages N	Gov't Villages Mean (s.d.)	δ mean (% dif.)	T - value	Prob > T
Population (less major towns for gvmt school sample)	9	345.56 (157.33)	3	537.00 (199.11)	-191.44 (55%)	—[4]	—[4]
% population of Bambara ethnicity	11	96.55 (8.54)	8	83.25 (21.48)	13.3 (14%)	—[4]	—[4]
% French speakers - ave. per village	11[5]	9.36 (7.81)	6[5]	10.67 (7.78)	-1.31 (14%)	—[4]	—[4]
Ave. # French speakers at home	130	1.62 (2.81)	94	2.61 (2.48)	-0.99 (61%)	2.7340	.0068 ***
Ave. # hshld members with 1-5 yrs. schl'g	132	1.93 (2.48)	94	3.01 (2.01)	-1.08 (56%)	3.6079	.0004 ***
Ave. # hshld members with 6-9 yrs. schl'g	132	0.21 (0.78)	94	0.91 (1.19)	-0.70 (350%)	5.0132	.0001 ***
Ave. # hshld members with secondary schl'g	131	0.14 (0.49)	92	0.35 (0.62)	-0.21 (150%)	2.7129	.0074 ***
Km. to arrond. capital	13	19.31 (7.94)	6[6]	22.17 (9.55)	-2.8 (14%)	—[4]	—[4]
% population with ready access to water (vil. est.)	11	97.73 (5.79)	8	85.13 (20.53)	12.6 (13%)	—[4]	—[4]
Level hshld property[7]	132	9.34 (10.19)	94	8.15 (4.14)	1.19 (13%)	1.2107	.2276

[4] No t- or Prob > T values have been calculated due to the smallness of the sample sizes.

[5] — One Save the Children village and one Government village were removed from the sample due to their exceptionally high values. In the case of Tienkoungo, the value of 75% is highly suspicious. Kolondiéba's value of 45 % was removed to avoid an unreasonable bias in this category due to it's being the *arrondissement* capital and consequently purposefully chosen as an exception, not a representation.

[6] — Those towns that are arrondissement capitals were excluded from the sample: Kolondiéba, Tousséguéla and Fakola.

[7] — Rough proxy measures of household possessions, livestock and agricultural production were created to indicate a relative measure of family wealth, offered as a substitute for income data, which were both absent and deemed inaccurate as economic "value" in a village setting often escapes monetary evaluation. The "PROPERTY" proxy was calculated from a weighted equation adding the following factors: radio, bicycle, improved cook stove and mosquito netting (times 1), electric generator, mo-ped, well, plow, cart, draught animal (times 2) and automobile, television and refrigerator (times 3). The "ANIMALS" variable was calculated by adding the number of poultry (X .05), sheep & goats (X 1) and cattle & horses (X 5). The calculation of the "crops" proxy incorporated. Two agricultural measures were created: "CROPS1," the total hectares for all the crops; and "CROPS2," the total number of sacks harvested for all the crops.

Level hshld animals[7]	132	40.81 (48.63)	93	46.73 (94.40)	-5.92 (15%)	0.5549	.5799
Ave. # hectares cultivated	131	83.4 (860.3)	93	26.8 (188.6)	56.6 (68%)	0.6244	0.5330
% hshlds with latrine (based on study sample)	132	89.4 (—)[8]	93	92.5 (—)[8]	-3.1 (3%)	—.[8]	—.[8]
If child likes school	139	97.1% (—)[8]	103	97.1% (—[8]	0.0 (0%)	—.[8]	—.[8]
Freq. of stdt absences — less than one week	139	1.65 (2.20)	103	1.55 (1.94)	0.10 (6%)	0.3455	.7301
Freq. of stdt absences — btwn. 1 wk. & 1 mo.	139	0.74 (4.00)	103	0.78 (2.68)	-0.04 (5%)	0.0830	.9339
Freq. of stdt absences — more than 1 mo.	139	0.29 (2.61)	102	0.04 (0.31)	0.25 (86%)	1.1437	.2547
Child studies at home	139	92.1% (—)[8]	103	100.0% (—)[8]	-7.9% (9%)	—.[8]	—.[8]

Summary of the evaluation instruments and administration

The actual evaluation involved three field phases. The first was an independent preliminary study by IPN, executed under contract to Save the Children and motivated by the mutual interest of the Ministry of Education and Save the Children. This was followed by an evaluation planning mission, which was initiated completely independently of the IPN effort. However, the actual execution, undertaken in Bamako by IPR in February 1996, did occur with direct and full collaboration with colleagues from IPN and Save the Children. This phase included two major tasks: (i) the preparation of an evaluation protocol and series of instruments; and (ii) the planning and programming of the full evaluation activity, with the proposal of a preliminary set of data analysis questions and strategies. The third field phase was the implementation of the evaluation, stretching over two-plus weeks' time at the end of March 1996 and involving the IPR consultant, six IPN researchers (three from the research division and three from the testing and measurement unit) and two Save the Children education advisors. The subsequent analysis and reporting of findings occurred as two independent efforts, one performed by IPN, the other by IPR, the latter of which yielded the present study.

The content of the evaluation entailed data on:

i. the level of basic academic skills and local knowledge attained by students;

ii. the classroom environment and the teacher's qualifications and performance;

iii. the role of the community in school management; and

iv. general socio-economic data for the students' families and communities.

[8] — No standard deviation given for percentages and no t- and Prob > T values are calculated as these variables represent simple bi-variate responses.

The same information was sought for both community and government school students and villages, serving as the basis for the comparative analysis. The evaluators captured the information in both quantitative and qualitative forms using fourteen different instruments, including three tests, seven questionnaires and four observation and interview guides. The tests included two academic assessment instruments — language and mathematics — and one to assess the students' level of local knowledge and practical application of school-acquired knowledge and skills. The evaluators administered these to students in the third and fourth years in the two sample groups. The decision to use the same test for the two grades was made primarily for reasons of economy, of time and money. While there was no expectation that the tests would permit comparisons across years, such comparisons did help to demonstrate the validity of the instruments, as the fourth graders did perform better than their third grade counterparts (with one notable exception, discussed in the section on the language test results, below).

The **mathematics test** consisted of 31 questions designed to measure the students' abilities in simple arithmetic calculations (13 questions), dissecting numbers into units, tens and hundreds (2 questions), the recognition and conversion of basic measures (5 questions), the recognition of basic geometric concepts and shapes (8 questions), and the execution of simple, practical problems (3 questions).

The **language test** comprised 38 questions chosen to measure the students' graphic ability, copying and writing basic words (13 questions), simple letter and word comprehension (2 questions), ability to distinguish between vowels and consonants (7 questions), textual comprehension (7 questions) and performance with word and sentence dictations (6 and 3 questions).

The **local knowledge test** comprised 12 questions, covering a variety of topics related to the local community context and covered explicitly in the Save the Children program curriculum, including: health and hygiene (2 questions); the local economy and related technology (7 questions); the environment (1 questions); and civic and cultural society (2 questions).

Both academic tests were prepared in the respective language of instruction for the two school models, French in the government schools and Bamanankan in the community schools, and administered in a classroom setting to a sample of about 30 students from each school. The language test for the community school students included with the Bamanankan dictation one French dictation passage taken directly from the test administered to the government school students. (The evaluators included this extra passage to try to replicate a similar, earlier assessment conducted by IPN on which the Bamanankan-schooled students had outperformed their French-schooled counterparts.[9])

[9] — There was some nervousness among the evaluators about the ability to compare reliably the results of the two tests due to the fact of the two different languages employed. Direct translations were precluded as the level of difficulty of the same word in French and Bambara were often quite different. The IPN testing and measurement experts who helped devise the tests tried to find words and phrases of similar structural difficulty while also selecting words with equally recognizable meaning and usage. While pre-

The scoring of both tests did not involve any partial credit, so that the highest possible scores were 31 on the mathematics test and 38 on the language test. The evaluators selected a smaller group of students to whom to administer individually a *local knowledge test*, included to assess explicitly the local knowledge element of the Save the Children community school curriculum. This test was administered one-on-one in Bamanankan in both types of school and scoring was based on the total number of answers sought for the respective questions; e.g. one question might seek a list of three answers. Consequently, the highest possible total on this test was 28.

The potential that testing the two groups in different languages would compromise the ability to compare results was debated seriously by the members of the evaluation team. The worry was that testing in different languages would not yield comparable results. For one, it was feared that the government school students would be unfairly disadvantaged by taking the test in French. Two, the equivalence of the different test items could not be guaranteed, especially for the language test. Notwithstanding these concerns, the option of conducting both tests in Bamanan was rejected. Not only is there a different (albeit not greatly) orthography, but it was not certain to what extent the government school students would be handicapped by their being tested in a language with whch they have full practical but no academic familiarity. The evaluators tried to mitigate any bias relating to this issue by providing instructions and clarifications on taking the tests in Bamanankan to both groups of students. In addition, most of the arithmetic questions required the students to work with shapes and numbers, so language was less important. The evaluators do admit that they may have missed an opportunity to test some of these assumptions by not incuding some Bamanan questions ono the test given to the government school students.

Perhaps most importantly, however, the evaluators considered that the choice of French or Bambara as the medium of instruction was a purposeful pedagogical choice for the two models. Consequently, they felt strongly that it was legitimate and meaningful to maintain each group of students' respective language of instructive as the testing vehicle to permit a more accurate measure of the efficacy of these different choices. Additionally, the two languages reflect the ultimate literacy futures for which the two school models are most concerned to prepare their students: secondary schooling in French for the government school students and nonformal schooling and basic social and economic communication and functioning in Bamanan for the community schools.

Save the Children's local education assistants conducted the administration of five questionnaires prepared to generate background data on the school, the students and the community. Specifically, these instruments yielded the following information:

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testing of the instruments may not have been completely thorough as regards assuring equivalent recognition and difficulty between the two tests, there is confidence that the vast experience of the IPN researchers in testing in both French and Bambara did yield tests that permit reliable comparisons.

i. **individual student schooling characteristics,** including the student's record of school attendance and activities and study habits and environment at home;

ii. the **household socio-economic status** and education and French levels of the student's family members;

iii. the **student's community environment**, including social, economic and cultural factors;

iv. basic **school access and retention rates** for the village; and

v. rudimentary information about the quantity and quality of the **school's infrastructure and pedagogical materials**.

Unfortunately, the education assistants were unable to fill out the questionnaires completely for all of the villages, schools and individuals interviewed. With incomplete data, the sizes of the respective comparison groups are often too small to permit statistically representative samples. Consequently, some of the quantitative analyses in the present study which involve these data are presented only for illustrative purposes, identified explicitly as such, and are only interpreted to suggest possible situations and indicate potentially fruitful areas for further, more deliberate study.

The team of evaluators (from IPR, IPN and Save the Children) retained responsibility for administering two other questionnaires as these were combined with a series of more open-ended interview guides. These five instruments were conceived to help understand each of the three major local factors affecting the operation of a school: the teacher and the classroom, the school and the community.

A **teacher questionnaire/interview guide** combined fundamental questions concerning each teacher's background, professional training and experience with more substantive questions about his/her approach to teaching, personal experience and impressions of the way the school is managed and administered.

The information from this instrument was complemented by the results of a **classroom observation**, designed to yield a more objective, external characterization and assessment of the teacher's classroom management style, student learning methods and teacher-student interactions in the different schools.

A **school management committee questionnaire/focus group interview guide** similarly yielded more straightforward information about the composition of the committee along with members' views and the committee's experience as relate to the management of the school and the teacher, interactions with Save the Children or the government, and community relations.

A **parent focus group interview guide** permitted the evaluators to triangulate the teachers' and school management committees' perceptions of community-school relations from the perspective of the system's other central actor. It also helped to reveal some of the community's views regarding the purpose and prospects of a

school-based education, with certain questions directed specifically at the issue of girls' schooling. In some of the villages with Save the Children schools, parents were asked to assess the community school approach and to state explicitly a preference for this or a government-style schooling for their children.

Finally, the evaluators employed a **household interview guide** to study the degree to which students apply lessons from the classroom to their and their families' home and community lives; another explicit outcome sought by the Save the Children school model. This interview also brought in some of the attitudinal elements addressed in the parent focus group format.

The information gathered by means of these instruments was completed finally by further facts and views sought from the broader constellation of participants in the Save the Children initiative and of the national basic education system. In particular, the evaluators obtained information from: (i) Save the Children technical staff and administrative officials; (ii) local and national government school system officials and technical advisors involved with or otherwise familiar with the project; (iii) representatives of some of the partner NGO agencies; and (iv) representatives of some of the international development partners familiar with and otherwise interested in the project. The resulting information combined to form a comprehensive, multi-dimensional tableau that demonstrates the complexity of the different variables that represent and, sometimes simultaneously, influence the management, operation and outcomes of the community school model.

The sample selected for the present evaluation permitted comparisons on a few levels. At the national level, it allowed the evaluators to contrast the community school model of Save the Children with the classic formal school model supported by the government. This was necessary in order to begin to address the issue of the relative "quality," or "suitability," of education offered by the community schools. It also yielded conclusions (though tentative) concerning the prospects for integrating this alternative model into the national education system by means of the *"passerelle,"* the bridge between the community's and the government's formal school programs. The sample was designed further to facilitate an independent, internal analysis of the program, of both a quantitative and a qualitative nature. (This is particularly noteworthy as it involves the inclusion of some of the relatively few partner NGO schools, none of which had yet reached the third grade level and consequently were not really suited for the testing component of the evaluation. The inclusion of this dimension was critical, however, to the Government's aim for the evaluation of assessing the desirability of and opportunities for expanding the community school model by other conduits on a nationwide basis.) Finally, the sample was constructed to facilitate the possibility of comparisons of an international dimension — with IPR's conducting similar evaluations in Malawi and Kenya —, although this aspect is secondary to the major purpose of the present evaluation and involves certain fundamental constraints, such as the fact that the nature of the different interventions is different, as well as the issue that the overall level of

schooling in Mali is different from the other two countries', as is the overall level of economic well-being.

In order to perceive the greatest impact possible from the community school model in the study, both at the community and the school levels, only those schools that have already reached grades three and four were considered. The total number of Save the Children schools selected was 13, constituting three of the four fourth year schools and nearly half (10 of 21) of the schools with a third year.[10] These 13 community schools were matched by 12 formal schools, located in the same *arrondissements* (with two exceptions). Four partner NGO schools were chosen (one for each partner), the smaller number considered acceptable as the data for this group of schools were not treated in the quantitative analysis aspect of the evaluation, with no partner schools having yet reached the third year. (Only three were actually visited due to unforeseen circumstances.) While the selection of schools to include was essentially random, an effort was made to include villages from the two sub-samples (those with community or government schools) of similar sizes and with other comparable characteristics. (See Table A.) In addition, a few schools from the original sample were replaced during the execution phase due again to certain *réalites du terrain.* Notwithstanding, the evaluators and Save the Children share confidence that these replacements have imposed no undue impact upon the random and representative nature of the data.

The selection of the students to test and of the households to visit for interviews was conducted in a more systematically random manner. Thirty students were chosen from each school to take the language and mathematics tests. Among this group, one-half was selected from each cohort in the community schools, with the two sub-groups being evenly distributed among boys and girls. The specific selection was made by counting the odd number girls (1, 3, 5,...) and the odd number boys as they appeared alphabetically in the teacher's student list for each cohort. Where a student was absent, the next girl or boy was chosen. In the formal schools, where class sizes vary considerably, the sample for each grade was restricted to fifteen, with the third and fourth grade students also totalling 30. In those classes with more than 15 students, the same selection approach of counting odd number students was employed. The whole class was included where fewer than fifteen were present. The selection of students for whom the evaluators gathered household level data and who took the test on local knowledge, the first, seventh and thirteenth boys and girls on the class list for each cohort were chosen from the community schools, yielding a total of 12. The same method was used to eliminate students from the

[10] — The original sample included all four fourth year schools, but due to unavoidable field circumstances, one of the schools had to be substituted. The decision to include all of the schools with a fourth year might be perceived as compromising, in an innocent and unavoidable way, the randomness of the sample insofar as these communities, constituting the initial set of villages, were subject to an especially careful screening in order to maximize as much as possible the potential for success. As reported by SC's Program Coordinator, Issa SIDDIBE, the demonstration effect sought from these pilot schools and villages was considerable, and every precaution possible was undertaken to assure a judicious selection.

15 chosen in the government school samples. In most cases, the selection was conducted by the Save the Children education assistants, whose visits preceded the evaluators' in most villages. they left a list with the teacher of the specific students they had interviewed and whose households they had visited. Generally, the evaluators found that the selection formula was fully respected. The final sample sizes are presented in Table B.

Table B — Sample Sizes, by Type of School

		Number of Students	
Type of School	Number of Schools	Tested	Visited
Save the Children Schools	13	349	124
Formal Schools	12	347	100
Total:	**25**	**696**	**224**

The question of quality: language and arithmetic test results and analysis

In response to the central question of whether the community schools provide a "quality" education — objective number one —, the data, presented in Table C, permit the start of a qualified affirmative response. On the one hand, the comparative (or norm-referenced) perspective is highly favorable. The statistical analysis of the results shows that community school students performed as well as or better than their government school counterparts on both the arithmetic and language tests. This comparison holds true for the full groups of students as well as when disaggregated by sex and grade level, with a few notable exceptions, as explained below. On the other hand, an absolute (or criteria-based) assessment of the scores for the community school students reveal only a poor to modest performance on the language and mathematics tests, with an average percentage of correct answers of 58 and 43 respectively, though these averages begin to approach respectability for the fourth graders, who scored 73 percent on the language test and 66 percent on the mathematics test.

Language test results. There should be no surprise that the community school students performed better than the government school students on the language test. This result is anticipated by both other research (e.g., Walter & Ringenberg, 1994) and basic common sense: it is easier to learn to read and write a language you already speak and understand than one you don't know. The difference in levels of reading comprehension was both robust — with the village students scoring almost 40 percent better than their formal school counterparts — and highly significant — with the difference of means exceeding the 99 percent confidence level for all the government school-community school comparison pairings. This finding held up as well for the two groups when

Table C — Comparison of means: student test scores

Sample Groups	N	Mean	(s.d.)	δ means	T	Prob> T
Language Test Scores						
formal schl students	340	16.1 (42%)	(7.3)	-6.0	9.6893	0.0001
community schl students	349	22.1 (58%)	(8.9)			***
formal schl boys	194	17.7 (47%)	(7.3)	-5.3	6.2502	0.0001
community schl boys	181	23.0 (61%)	(9.0)			***
formal schl girls	143	14.2 (37%)	(6.7)	-7.0	7.9135	0.0001
community schl girls	168	21.2 (58%)	(8.8)			***
formal schl 3rd grade	196	14.0 (37%)	(6.6)	-6.4	9.0048	0.0001
community schl 3rd grade	268	20.4 (54%)	(8.7)			***
formal schl 4th grade	141	19.3 (51%)	(7.0)	-8.6	8.6491	0.0000
community schl 4th grade	81	27.9 (73%)	(7.3)			***
community schl 4th grade	81	27.9 (73%)	(7.3)	7.5	7.0193	0.0000
community schl 3rd grade	268	20.4 (54%)	(8.7)			***
formal schl 4th grade	141	19.3 (51%)	(7.0)	5.3	7.0887	0.0000
formal schl 3rd grade	196	14.0 (37%)	(6.6)			***
formal schl 4th grade	141	19.3 (51%)	(7.0)	-1.1	1.3828	0.1676
community schl 3rd grade	268	20.4 (54%)	(8.7)			
Math Test Scores						
formal schl students	347	13.2 (43%)	(6.4)	-0.7	1.4162	0.1572
community schl students	348	13.9 (45%)	(7.9)			
formal schl boys	198	14.3 (46%)	(6.5)	-0.6	0.7630	0.4460
community schl boys	183	14.9 (48%)	(8.2)			
formal schl girls	148	11.5 (37%)	(6.0)	-1.3	1.5944	0.1119
community schl girls	165	12.8 (41%)	(7.5)			
formal schl 3rd grade	161	10.6 (34%)	(5.9)	-1.3	2.0311	0.0429
community schl 3rd grade	267	11.9 (38%)	(6.9)			**
formal schl 4th grade	162	15.7 (51%)	(6.0)	-4.9	5.1751	0.0001
community schl 4th grade	81	20.6 (66%)	(7.5)			***
community schl 4th grade	81	20.6 (66%)	(7.5)	8.7	9.8545	0.0000
community schl 3rd grade	267	11.9 (38%)	(6.9)			***
formal schl 4th grade	162	15.7 (51%)	(6.0)	5.1	7.6478	0.0000
formal schl 3rd grade	161	10.6 (34%)	(5.9)			***
formal schl 4th grade	162	15.7 (51%)	(6.0)	3.8	5.8205	0.0000
community schl 3rd grade	267	11.9 (38%)	(6.9)			***

disaggregated by sex and grade and even pertained when comparing the community school third graders to the government school fourth graders, though without statistical significance. (These differences were equally evident in the qualitative assessments conducted during the classroom observations, as described below.) The fact of the considerably greater difference in means at the fourth grade level (8.5) than at the third grade level (6.4) may be interpreted to suggest that the literacy benefits accumulate with successive years (at least during the first several years of formal schooling[11]).

The acceptable percentage correct answers, nearly 75 percent, for the community school fourth graders provides an additional, absolute measure that permits enthusiasm concerning the learning occurring in these classrooms. Not only are community school students performing better than their government school counterparts, but they are apparently learning to read, write and comprehend at an acceptable level (at least as measured by the present instrument). Indeed, upon completing the field study phase of the evaluation, one of the IPN researchers reluctantly admitted how impressed he had been by the confidence and facility of the community school students in their reading and writing exercises. This experience contradicted seriously his pre-study skepticism towards mother tongue instruction built up over several years of teaching and pedagogical research on peripheral areas in Mali. His expectation of poorer community school performances on these tests had been heightened by the fact that this instruction was performed by non-formally trained teachers.

Looking specifically at the results of the French dictation passage that was included in both language tests, it is noteworthy that the community school students performed vastly better than their government school counterparts. On the dictated sentence that both groups heard in French, 46 community school students' gave correct answers, still a low percentage of the total group but *over eleven times better* than the government school students ability to write the same spoken sentence in French.

While this result in no way should be construed as an indication that the level of French comprehension among the community school students is better than, or even approaches that of the government school students, it may permit optimism concerning the ability of Bamanankan instruction to provide a viable foundation for students eventually to learn to read and write in French. As implied in the literature (cf., Cummins, 1979, 1981), this in turn may be supposed to help with comprehension when French is eventually introduced into the curriculum. The implications of this conclusion are significant as the communities, Save the Children and national (and international) decision and policy-makers consider ways to maximize the eventual successful transition of some of these

[11] — This advantage clearly reaches a threshhold at some point in a Malian (or any francophone African) student's academic career, with full French literacy being achieved on a par with those of their Gallic brothers and sisters. This is abundantly obvious from the considerable French eloquence of those Malians having advanced far in their formal academic studies. However, the observation of achieving literacy in the local language remains highly relevant when one considers that the vast majority of Malian students do not proceed beyond the primary level of formal schooling.

students to the government school system. For those students who will not be concerned by this transition, the high score of the fourth graders suggests strongly that viable, sustainable literacy (in the local language) for community school graduates is highly likely. At the same time, the relatively low score for the community school third graders may be interpreted as showing that the original scheme of just a three-year cycle was likely insufficient for the attainment of lasting academic skills.

Arithmetic test results. The conclusions concerning the relative quality of education offered in the community schools may be interpreted to be confirmed further by the comparison of results on the arithmetic test. The overall and by sex scores for arithmetic were statistically equivalent for the two groups, while the individual grade comparisons generated differences that were both significant, with greater than 95 percent confidence, and relatively robust, in favor of the community school students! Though the difference is relatively small for the third grade comparison, under 12 percent, the greater fourth grade comparison, an over 30 percent advantage for the community schools, again shows a potential accumulation effect.[12] Though less strong than the language comparisons, these outcomes may be seen to constitute at least as convincing an indication that quality instruction and learning is occurring in the community schools. This is because there is no natural reason the community school students should do as well or better in arithmetic than their government school counterparts, while there is with the language test. So even an outcome of equal performance for the two groups may be interpreted as demonstrating that the Save the Children community school program is a reasonable substitute for the government's formal fundamental education program.

Looking at just the word problem questions, ostensibly requiring greater reasoning and contextual comprehension of the students, the gap was considerably greater, still in favor of the community school students, who averaged total correct responses for the three questions of 129 compared to an average of 66 correct answers for the government school students, a difference of almost 200 percent. Although language comprehension undoubtedly constituted another factor explaining this difference — with the community school students taking the test in their native tongue and the government school students tested in French —, the possibility that this result also derives from greater problem-solving abilities cannot be excluded.

Just as the comparative results on the arithmetic test mimic those on the language test, so do the absolute results: rather than scoring "better" than the government school

[12] — It should be noted that special attention was taken with the first group of schools to try to find villages and to create conditions that would maximize the potential for success, which might also explain the greater differences. On the other hand, several project administrators, teachers and others identified factors that might disadvantage this inaugural group of schools: (i) a too great age range for the students enrolled — between 7 and 15 years —, affecting both student-student and student-teacher dynamics; (ii) on-going "fine tuning" of pedagogical materials and delays in their timely delivery to the teacher and classroom; (iii) coming up with suitable, effective strategies for teacher training, monitoring and support; and (iv) an exaggerated attrition rate in this first class due to a preponderance of older students, more boys were ready to leave to find work in Côte d'Ivoire (as is custom in the region) and more girls left to marry.

students, it seems more appropriate to say that the community school students scored "less poorly." Of all the sub-groupings, only the community school fourth graders could conceivably be perceived as having a somewhat acceptable average score (66%). The poorer performance of the third graders was expected as both grades took the same test, and may consequently be interpreted as partially confirming the reliability of the test instrument. It is also possible that the overall performance results from the test's do not reflect faithfully the fourth grade curriculum, although both IPN test designers and Save the Children education administrators did participate in its creation and expressed confidence in its reliability.

Many people may wish to impose qualifications on the comparisons of these test results for the two target groups. From a more pragmatic vantage, there is the inherent difficulty in interpreting results generated by tests administered in two different languages, discussed above. The second qualification pertains to the question of how well relative success in the community school program will translate into acceptable performance as these students move into the government school system. The fact that no students have yet made this transition prevents the evaluators from positing definitive conclusions, but the current findings do not bode well for this aspect. The matter of the *passerelle* is treated more fully and deliberately later in this report.

Impact upon enrollment rates and other efficiency measures

While the delivery of an education of quality was certainly paramount to all concerned, the initial motivation for the project was to provide schooling to communities with no schools, and consequently with few or no children in formal school elsewhere. The robust impact of this strategy on school enrollment rates at the macro level (for the entire *cercle* of Kolondiéba, as well as of Bougouni) was already shown in the introduction, with the project raising the percentage of villages with schools from twelve to over fifty in four years. The relative impact of the project at the micro, or village, level (i.e., as compared to the government school communities) on enrollment rates and other efficiency measures (attendance, dropout, retention, repeater and passage rates) also seems to be sizable and significant, although the data gathered was incomplete (neither existing for all the villages in the sample nor obtained for all categories in some of those villages that were covered) and therefore does not allow conclusive comparisons. (In the case of repeater rates, any comparison is effectively irrelevant as the village schools have a policy of automatic promotion.) The related data, summarized for the sampled schools in Table D, indicate in general the greater overall efficiency of the community school program.

More specifically, the evaluators estimated *student enrollment* rates for children between 11 and 15 years (the range that corresponds more closely to regular third and fourth graders) for the community schools in the sample to be 13 percent. While this rate exceeded considerably the estimated figure for the same age range in the government schools — 8 percent —, there are two major factors that impose caution in interpreting

this comparison. One, the population data that constitutes the denominator of this calculation is not fully reliable, based on community estimates rather than on census data (which also tends to be only approximate). Two, the longer recruitment cycles for the community schools (three years *versus* one or two), with a six-year age range for enrollment eligibility, along with the fact of one community school recruitment class *versus* three[13] to six recruitment classes in the government schools), cause enrollment rate comparisons by grade to be a bit misleading. Notwithstanding these empirical caveats and the smallness of sample size (hence, no t-tests), the respective differences at least suggest that at the micro-level the community school model is recruiting and retaining students at least as well, and more likely better, than the government schools.

Table D — Comparison of school efficiency measures

Efficiency Indicator	Government Schools N=8[14]	Community Schools N=10
Student enrollment rates	8 %	13 %
Girls enrollment rates	5%	13%
Boys to girls enrollment ratios	1.67 : 1	0.8 : 1
Dropout rates	5.66	1.92
Girls' dropout rates	2.37	0.58
Student absences, one week or less	1.55	1.65
Student absences, one week to one month	0.78	0.74
Student absences, more than one month	0.04	0.29

The difference in *girls' enrollment* rates for the same age range seems to favor even more the community schools, with average estimated enrollment rates considerably higher than in the government schools: 13 percent and 5 percent, respectively. Again, the caution of comparing the two populations pertains. Yet also again, the evidence does seem strong enough to conclude that the project stipulation of a 50-50 split in girls' and boys' enrollment has been largely respected and results in a vast improvement in the

[13] — In some of the smaller communities, the government school practiced a two-year recruitment cycle, so that some schools would have only a first, third and fifth or a second, fourth and sixth grades composition.

[14] — The sample sizes employed here are smaller than the full number of schools visited as data were not collected reliably for all the schools.

situation of girls access to schooling. The boys to girls ratio within this age range is 1.67 : 1 for the government schools and 0.8 : 1 for the community schools.

As regards whether the girls are benefiting from this increased attendance by actually learning in the classroom, it has already been shown that the tests indicate a similarly favorable verdict. While the community school girls did score lower than their male classmates in both math and language (see Table C), they outperformed considerably (by nearly 7 points, or 50%) and significantly (99% confidence level) the government school girls on the language test and by just 1.2 points (barely under a 90% confidence level) on the math test.

The suggestion of improved student attendance by the community schools is also apparent in the *dropout* figures for the two samples, looking particularly at how many children have persisted through the first three or four years of their formal education. While data reliability and comparability across the different types of sample (again related to the number of classes and recruitment cycles, as well as to common data collection problems) continue to be a consideration here, the differences in the respective rates are stark enough to permit reasonable confidence of improved student retention in the community schools. The approximated dropout rates for the community schools was only 1.92 percent[15], almost one-third the figure for the government schools, 5.66. The approximated difference in the dropout rates for girls in the community and government schools favored the former by an even greater margin, almost one-fifth: 0.58 and 2.37 respectively.

Attendance is more directly addressed in the different measures of absences registered by the researchers. The figures for the prevalence of absences within the two school models does not suggest a more favorable record of the community schools, with basically the same rates of self-reported absenteeism for the two models.

Ultimately, it is highly noteworthy that any of the children from the participating villages are in the community schools. Certainly no one will leap from their bathtub to run through the streets naked yelling "Eureka" upon learning that school enrollment goes up considerably when a school is built in a village where previously there was none. Still, the provision of a formal education to previously unserved children constitutes a clearly vital benefit to the affected villages and is central to the purpose of the Save the Children

[15] — This figure is calculated without the dropout numbers for the fourth year school of Koloni-Boundi included. The reason for this exclusion is that Koloni-Boundio suffered some extraordinary circumstances, such as the death of one teacher and the temporary abandonment of the other. As a consequence, the village now has just one cohort, with over half the original recruitment class now gone. The adoption of such statistical poetic license for the current study should not be seen as a diminution of the consequence of such occurrences. Unfortunately, death and prolonged unexcused absences by teachers are real factors in Mali. The case of Koloni-Boundio may be seen as pointing out the relative vulnerability of the community school model in such situations, although it may be seen as an extreme coincidence that these two unfortunate events happened in the same village. Indeed, after the one teacher's death, the other teacher simply took over the second cohort as well, much as happens in similar circumstances in government schools.

Project. In the villages studied, only three of the children currently in the eleven community schools for which these data were gathered were reported to have attended a government school previous to the community school's initiation; compared to a total of about 600 students currently enrolled in these schools! Taking a longitudinal perspective, in the same group of villages, families reported that only 19 members total — parents and children included — had received a formal education previously, well below the total number for even one cohort presently attending a community school. This figure contrasts greatly with the similar figure of 108 schooled family members reported by grade three and four students in the 11 government school villages for which these particular data were gathered. Clearly the effect of the community school on the enrollment (and acquisition of literacy, arithmetic and other academic skills) is tremendous when compared to what the village's school enrollment would be had the students continued to rely solely on a government school in another village for his/her formal education.

Obviously, as has already been stated, the question of passage to secondary school evokes a completely different set of issues and cannot be determined or judged at this point, although some of the qualitative factors and possible strategies discussed above and below will certainly influence how this aspect evolves.

What quality?: results of the local knowledge tests and household surveys

The question of quality also requires qualification insofar as parents, students and government officials seek that school does more than just prepare an individual for further academic training. In particular, the evaluators of the Save the Children community school initiative deem it especially important to bring a more comprehensive appreciation to the analysis of the "quality" of education provided, one that is measured by more than simply comparing test scores and efficiency measures and counting inputs. With many of the communities having adopted the particular education model within an overall context of integrated community development (supported by Save the Children, among others), the parents involved expressed to the evaluators both individually and collectively and in a very clear voice that they are seeking for their children an academic *and* a practical education. They implied that this combination will improve their children's ability to be more productive and less physically (and spiritually) debilitated in their economic endeavors (with a wider variety of technologies and employment options) within their village of origin, permitting (or even encouraging) their children to remain and live there happily and progressively as adults. It was obvious that neither the parents nor the children perceive schooling as simply a one-way ticket out of the village to urban living and salaried jobs. As such, it is also evident that a strictly academic track — one intended primarily to lead to higher education and eventually to white-collar employment — on the one hand and the grafting onto conventional academic lessons of a practical, rural-based purpose on the other signify distinctly different, though not necessarily mutually exclusive, "qualities" of education. Consequently, the evaluators added to their charge the objective of researching a definition of quality education that conforms more closely to the

expectations and hopes that parents in the sample villages stated for their schooled offspring.

Views on this matter were sought most directly by asking of community school parents the question, "If you *had* to choose, would you rather have in your village a conventional government school with instruction in French or the community school program in Bamanankan?" The consensus seemed to favor the latter option. Parents from one community captured this sentiment in their focus group by replying that while they would really like to have both types of schooling available, if forced, they would rather forego the French school. "We desire for our children a formal education in Bamanankan," the parents explained, "because this favors more open-mindedness among the children as regards both the local and the larger, outside communities; more than does the government school. Someone who learns in his or her own language, at the end of three years already has a broader view of the world than someone who has learned in French." As indicated here, parents across the community school sample want their children educated to prosper in their home environments, implying a schooling that prepares students for rural living, implying economic as well as social and cultural dimensions.

As such, the question "To what degree do the community schools succeed in preparing students for the adult lives they will most probably find in the villages where they grew up?" is also critical to the evaluation of the "quality" of education associated with Save the Children project. The evaluators attempted to approach this aspect of the study from two directions. One, the evaluators devised and administered a test of local knowledge, covering such topics as major local economic activities and crops, community hygiene, local culture, health and the local environment. Two, they went to the homes of the students to see to what degree the lessons learned in the classroom were apparent in their activities and contributions at home.

Test of local knowledge. The test questions on local knowledge were drawn directly from the Save the Children curriculum (although it was not certain that all classes had already reached the related lessons in their classes at the time of the evaluation). As such, it was firmly expected that the community school students would score better than their government school counterparts on this instrument. Indeed, some of the IPN evaluators had originally agreed only reluctantly to employ this test, protesting that it would unfairly disfavor the government school students, for whom these topics do not figure explicitly in their formal curriculum. However, to the surprise of all the evaluators, the formal government students *outperformed* the community school students on this test, albeit by a slim margin (in the vicinity of a five percent difference), but with better than a 90 percent degree of statistical reliability. The statistically superior performance of the government school students also held up across all sub-group comparisons except for the comparison for fourth graders. These results are presented in Table E.

From an absolute perspective, the results of both groups demonstrated an overall acceptable knowledge of locally relevant information, at least as assessed by the present

Table E — Comparison of means: local knowledge test scores

Sample Groups	N[16]	Mean	(s.d.)	δ means	T	Prob> T
formal schl students	135	20.9 (75%)	(3.5)	0.9	2.1939	0.0291
village school students	144	20.0 (71%)	(3.3)			*
formal schl boys	66	21.5 (77%)	(3.8)	1.1	1.7571	0.0812
village schl boys	70	20.4 (73%)	(3.2)			*
formal schl girls	69	20.4 (73%)	(3.2)	0.8	1.4263	0.1560
village schl girls	73	19.6 (70%)	(3.3)			
formal schl 3rd grade	70	20.4 (73%)	(3.4)	0.9	1.9675	0.0508
village schl 3rd grade	102	19.5 (70%)	(3.0)			**
formal schl 4th grade	60	21.7 (78%)	(3.6)	-0.1	0.2248	0.8226
village schl 4th grade	36	21.8 (78%)	(3.4)			
village schl 4th grade	36	21.8 (78%)	(3.4)	2.3	3.9100	0.0001
village schl 3rd grade	102	19.5 (70%)	(3.0)			***
formal schl 4th grade	60	21.7 (78%)	(3.6)	1.3	2.0051	0.0471
formal schl 3rd grade	70	20.4 (73%)	(3.4)			**
formal schl 4th grade	60	21.7 (78%)	(3.6)	2.2	4.1885	0.0000
village schl 3rd grade	102	19.5 (70%)	(3.0)			***

test instrument. Both the total populations and the different sub-groups clustered around a total percentage correct score of over seventy percent, with a maximum possible total score of 28.

While it is difficult to determine unequivocally the reason for this unexpected outcome, several possible explanations warrant consideration. First, the transmission of the local knowledge lessons by the community school teachers or the materials provided to them by the project may be ineffective. Second, the government schools may transmit the same or similar knowledge adequately. Third, the information sought in the test may constitute knowledge the children acquire naturally in their communities, outside of school, in which case the expectation of a better performance by the community school students would be unreasonable. Fourth, the test instrument might simply have been inappropriate, or poorly administered, though the Director for Save the Children's education sector did participate in its construction and was confident that it matched the actual community school curriculum. Finally, the equivalent performance of the

[16] — These numbers should equal the number of households visited. They are greater as not all households were able to be covered.

government school students could be explained partly by the fact that they also took this test in Bamanankan, the knowledge tested here not dependent upon the language of instruction. (If this is the case, it will reinforce the argument that the results on the language and arithmetic tests do not represent accurately the relative levels of mastery for the two populations.)

Regardless the explanation, these results should concern Save the Children as mastery of local knowledge comprises a purposeful priority of both the curriculum and the pedagogical methods in which community school teachers are trained. However, before undertaking wholesale revisions in the local knowledge element of the curriculum, it may be relevant to attempt to confirm the present findings with a new test instrument and protocol. One modification that would be interesting to incorporate is the inclusion of non-schooled youth in the sample, permitting a more definitive analysis of the hypothesis that local knowledge learning occurs outside the classroom. A more purposeful pedagogical strategy for teaching local knowledge may still be desirable, with Save the Children accepting these findings and investigating directly with teachers, project staff and outside education advisors the current content of the local knowledge curriculum, the suitability of the related materials and the efficacy with which the community school teachers employ these materials and curriculum to transmit the related lessons.

Home use of school knowledge. As indicated, the second approach to assessing the relative impact of the model on a student's life outside of school involved the use of a household survey to derive a more qualitative assessment of the comparative effects of the two education models on student acquisition of school-acquired knowledge and especially of its practical application at the household level. This line of inquiry also evolved directly out of the explicit community development purpose of the community school program. Specifically, the questions investigated in this part of the evaluation covered the role children play in a household's overall economic activities, including such things as simple accounting or economic calculations, and agricultural and livestock activities, trying to determine especially if there were any new practices or ideas that the students have helped introduce into the home. The results of this questionnaire are reported in Table F.

The related survey results show that government school students are engaged in a small number of activities to a similar or greater degree to the community school students. Specifically, households in the two sets of villages responded with basically equal frequency (under a 20 percent difference) to questions about a household savings account and the family's adoption of agricultural innovations. Government school households reported a greater tendency to adopt technical innovations and for children to help their mothers with gardening; though in all instances the absolute frequency was relatively small while the relative difference for the two groups was considerable for the adoption of technical innovations. Conversely, the Save the Children households reported a higher incidence of the remaining other practices identified in the survey. While this difference was modest for most of the cases, the reported frequencies diverged considerably for the role of students in supporting their families adoption of agricultural innovations and the

independent operation of agricultural and livestock activities by students. Examples of the range of specific household practices attributed directly to students are their conducting simple commercial transactions for their parents, either buying or selling small amounts of various items, or raising their own chickens. No obvious conclusions concerning the relative efficacy of the two models in diffusing development behavior through the students to the home emerge from this analysis.

Table F — Home use of school-acquired knowledge

Household Practice	Community Schools	Government Schools	Percentage Difference
Family maintains a savings account	10%	10%	0%
Student helps with household calculations	61%	47%	30%
Family has adopted agricultural innovations	48%	41%	17%
Student has played a role in the family's adoption of agricultural innovations	13%	2%	550%
Family has adopted other innovations	6%	23%	- 283%
Student engages in independent agricultural or livestock activities	39%	19%	105%
Student helps w/ technical aspects of household	85%	66%	29%
Student has planted trees	24%	17%	41%
Child helps mother with gardening	33%	41%	- 24%

While it might be convenient to assume in the few cases that the greater frequencies suggest a greater impact of the respective school models on the household, there are too many other community factors that might explain better these different reported tendencies. In virtually all instances in which parents confirmed that their children had played a role in the household adoption of some innovation, they explained that this involved essentially the child's motivating the parent to apply some training or exploit some other opportunity provided to them through a Save the Children or other organization's initiative. One example of this was a mother's claiming not to have adopted the practice of oral rehydration for treating her infant's diarrhea, which she had learned from a community health worker, until urged to do so by her third grade daughter. Other parents claimed to have sought out technical assistance, and in some instances credit, related to various agricultural techniques — e.g., planting trees, tilling with a plow, preparing and employing organic fertilizers, and using a ceramic urn filled with manioc leaves, manure and mud to attract termites for feeding to the chickens — upon the

initiative of their community (and, for tree planting, government) schooled child. Another parent showed the evaluators a drainage system for the sanitary evacuation of household wastewater that he had learned to do from a community development worker but had actually installed upon the encouragement of his community-schooled child. Several other similar anecdotes might be offered.

It may seem reasonable to explain these differences as relating to the fact that the villages where the government schools operate tend to be much larger than the community school villages — even excluding the arrondissement capitals, the former average almost three times as many family concessions, 123 *versus* 45 — and hence are less rural. While this hypothesis may hold to a certain extent, the reported primary employment structure for the two groups of villages appear to belie this conclusion. In all but one of the twelve reporting community school villages, agriculture was the primary economic activity, and in eight of the twelve, livestock was the secondary activity. In contrast, in all of the six government school villages for which this information is available, agriculture and livestock rank first and second among economic activities.

Both the survey and the anecdotal evidence as relate specifically to the community schools experience seem to suggest a significant overall relation between schooling and innovative practices in the household, irrespective of the model (though further analysis of the data is necessary). This may be perceived as especially noteworthy when one recalls that these activities involve just third and fourth graders, with an average age of 10.8 years for the community school students and 11.4 for the government school students. Of equal, or perhaps greater, significance may be the occurrence of a reverse synergy between community development efforts and primary schooling, with local development initiatives helping to motivate parents and the community to value and support more energetically their children's formal education. It is very clear from the testimony of the community school villagers, Save the Children and partner NGO staff, and government education officials interviewed that the combined experiences of local development initiatives and adult literacy training programs[17] contributed significantly to the community members' initial and growing interest in and appreciation of the fundamental importance of basic education, especially for girls. More precisely, the combination of development-related experiences and observations may be interpreted as having demonstrated to them the considerable practical and inherent value of a basic education that includes local topics as a central aspect of the curriculum and at the same time employs the local language as the medium of instruction.

The occurrence of community development projects, along with the growing numbers of failed urban emigrants, seems to have both raised some of the luster of working and otherwise participating in the life of the village and tarnished further the myth of the "bright lights and easy jobs" of the city, typically associated with the government school

[17] — Save the Children's community development initiative for Kolondiéba also includes hygiene and health activities and extension, agricultural extension, community savings and credit institutions, adult (especially women's) literacy, and other efforts.

model. This contrast is suggested in a few of the responses of the two groups of parents to the survey question, "What future do you hope your child's schooling will help him/her attain?," presented in Table G. While a strong plurality of the government school parents who responded to this question hope or expect that their children will continue their formal studies and become highly skilled professionals (27% and 35 % respectively), the community school parents appear to possess more modest goals. This latter group reported to value the ability to read and write above further formal studies and sees their children much more in the role of service providers than of highly skilled professionals. One likely interpretation of these findings is that the community school parents see their children's being useful to their villages by remaining there while the government school parents anticipate their children's helping their community by means of financial remittances earned in an urban job.

Table G — Parental aspirations for their schooled children

Aspiration	Government Schools N=52[18]	Community Schools N=40
Good job	4 (8%)	3 (8%)
Be useful to the village & family	3 (6%)	3 (8%)
Be independent	7 (13%)	8 (20%)
Professional — doctor, Minister, civil servant,...	18 (35%)	2 (5%)
Service provider — teacher, health worker, literacy trainer,...	4 (8%)	5 (13%)
Tradesman — carpenter, mechanic,...	2 (4%)	2 (5%)
Farmer/merchant	0 (0%)	1 (3%)
Further studies — secondary and tertiary	14 (27%)	4 (10%)
Be literate	2 (4%)	7 (18%)

Notwithstanding this evidence, both Save the Children's and the partner NGOs' education assistants (who are responsible for the model's dissemination outside of Kolondiéba) assert that the demand for schooling has in recent years grown beyond the

[18] The numbers are below the actual number of households visited due to non-responses to this question by many parents.

activities of community development initiatives. This observation is corroborated further by the Ministry of National Education Inspector for Bougouni II, who has a long list of communities that have requested the initiation of a government school in their village. Obviously, the desire for formal schooling has assumed a momentum in the region that can no longer be attributed to the pre-condition of an existing community development program. Rather, as has already been indicated, the education assistants claim that the requests from villages for community schools both exceeds the NGOs' ability to provide the desired support and are arriving faster than the assistants can get to the different villages to promote the idea. This is reportedly equally true of villages with active community development programs as of those with no such activities. A critical mass has obviously been achieved, and while it may not be possible to associate this new (or maybe just latent) widespread desire for schooling irrefutably with the community school's "local" nature (the village may just see this as a temporary solution until a government school is offered, though the discussion above indicated an unequivocal stated preference for the community school model), it must be appreciated that so many villages do in fact perceive this as an acceptable alternative to a government school. The villagers' and students' endorsement of the value of the community school as a viable, valuable option is perhaps most simply seen in the relatively high enrollment and persistence rates reported above.

Possible factors affecting school quality

Having established that the Save the Children community school students are performing at a suitable level of quality, at least relative to their government school counterparts and in academic areas, it is important to determine to what degree these results may be attributed to the project and how much other, non-project related factors are responsible. The present report approaches this distinction from two perspectives. The one entails the more objective, statistical method of a regression analysis, employing data on household and community characteristics generated by the study to see if there might be outside — i.e., non-school related — factors that are causing the differentiated test scores for the two target groups. The other involves a more qualitative assessment of the different school inputs associated with the two models, comparing specifically the collective characteristics of the two sets of teachers and their basic classroom management styles. Taking school enrollments and efficiency as other indicators of quality, there is also an effort to explain the relative strength of the community schools as relate to these factors.

The impact of community and household factors on test results. The results on the three tests beg the question "To what degree is the performance of the two groups of students attributable to the particular school type and how much is this explained by outside factors?" The search for effects on the student scores attributable to household and student characteristics was conducted in the form of a two series of regression tests, one for each set of data — household and student[19] — and run separately for each of the three tests. Table H presents the specific factors considered for each of these aspects.

[19] — The need for this somewhat clumsy, bifurcated approach rests upon the limited overlapping of the two samples. Despite an effort by the evaluators to gather household data for every student for whom personal and family data was gathered, various circumstances prevented this from occurring. Consequently, while the independent sample sizes for the two data sets were ample (about 180 for each), when merged, the number of cases for which both sets were available dropped to only 44.

Table H — Factors analyzed for potential effect on test scores

Household Factors	Student Factors
• student's family's size	• number of absences
• family's age composition	• previous formal schooling, relevant for community school students only
• family members' formal school attainment	• student's situation in the family (which number child)
• occurrence of spoken French in the home	• any chronic infirmities
• employment and other sources of family income	• the duration and frequency of student absences
• level of household possessions (a proxy for wealth)	• the prevalence and conditions of a student's studying outside of school
• physical size and state of the home	• a student's access to outside help and school materials
• number of vaccinated children	• the level of French usage in the student's household.
• number of livestock	• age
• level and type of agricultural production	• sex
• reported academic level aspirations of the parent for the child	

The number of specific student and household independent variables included in the regression analyses was brought down to more manageable lists of ten each by means of two techniques. First, those variables that appeared from a review of the raw data either to demonstrate little variation among school types or to harbor excessive measurement errors were eliminated from consideration. Second, a computer-generated adjusted R-square criteria test was employed to identify those factors that appear statistically to have the greatest impact upon the respective dependent variables. The independent variables that survived this triage are presented in Tables I-i and I-ii, along with their respective coefficient values, significance (Prob>T) values and means for the two samples, of interviewed students and a responsible household member.

Both series of regression analyses were divided further into two models. The first model incorporates the schools factor as a simple aggregated "dummy" variable, "Save the Children. The results of this model are presented in Tables I-i and I-ii. The second model also uses the aggregate "Save the Children" variable but adds as well a "dummy" variable for each individual

school for the sample.[20] (See Table I-iii.) The reason for adding this analysis is to determine if the effects that might appear attributable to the Save the Children variable, a program effect, are not really masking what might better be explained by individual school effects. Two results would suggest that this is the case: (i) the coefficient and level of significance for the Save the Children variable would drop when the individual school variables are included; and/or (ii) one or more schools would emerge as bearing much greater explanatory power, with a high coefficient and significance level.

Exploring the school effects is particularly important as the aggregate school variable does not capture the full population of students included in the sample. Due mostly to problems encountered getting accurate ages for many students, the sample sizes captured in the two regression models represent only about 80 percent of the full interviewed samples. In addition, no student and household interview data were generated for the two community schools and one government school that were substituted during the field research phase. The model that includes the school effects is also needed, therefore, to ensure that no skewing of the regression outcomes resulted from the exclusion of 20 percent of the students and 12 percent of the schools.

To the contrary, as shown in Tables I-iii, the inclusion of the individual school variables not only does not rob any robustness or significance from the Save the Children dummy variable, the coefficients and probability values for this model seem to attribute even more explanatory value to the program effect. Indeed, the overall analysis of the regression outcomes demonstrates that while contextual factors associated with some individual schools obviously do influence student outcomes for both school types and on all three tests, the strongest implication is that the type of school a student attends bears far and away the greatest impact upon a student's learning. This is especially true as regards language learning and local knowledge. The fact that a child has attended a Save the Children school yields a highly robust impact on language scores for both the household and the student data, with β values of 7.4 and 9.05 respectively and with 99 percent significance levels in both instances. (The similar values for the fixed effects run are 8.18 and 12.07, also with 99 percent significance.) The effect is also relatively strong and significant on the local knowledge test scores, though in the negative direction. Both these outcomes may be seen to validate the difference of means analysis presented in Tables C and E.

Given the results of model 2, it is possible to assess the relative effects of the school and other, contextual factors by looking at the results for model 1 alone (in Tables I-i and I-ii). As regards the language scores, two other factors approach the school variable's level of robustness and significance for the two sets of independent variables, neither of which is surprising. These are the occurrence of family members having attended tertiary school (5.11 and 95 percent significance) and whether the child reports that s/he studies at home (7.59 and 99 percent significance). The statistical effect of a student's age and sex on his/her language score as analyzed for the two data sets is ambiguous, both being significant when evaluated with the

[20] — One school from each treatment group — government and community — is left out of the analysis using this test, to avoid problems of redundancy in the statistical analysis.

Table I-i — Results of the Regression Analysis (household interview variables)

Dependent Variables (test scores):	Language		Arithmetic		Local Knowledge		
Independent Variables (household)	Parameter Est. (β)	Prob > |T|	Parameter Est. (β)	Prob > |T|	Parameter Est. (β)	Prob > |T|	Mean Values (s.d.)
$N_{students}$ = 184 (82% total); $N_{schools}$ = 22 (88% of total)							
Intercept	4.49	.1748	-1.88	.5634	21.09	.0001 ***	---
Age	0.86	.0034 ***	1.22	.0001 ***	0.04	.79983	11.42
Sex — male	2.24	.0225 **	2.53	.0090 ***	1.12	.0640 *	0.46
Save the Children School	7.4	.0001 ***	0.78	.4672	-1.67	.0116 **	---
Village under-15 enrollment rate	-0.26	.0403 **	-0.17	.1115	0.01	.8825	5.62
Family members w/ 2° school level.	-1.95	.1364	-1.25	.3231	-0.87	.2526	0.22
Family members w/ 3° school level.	5.11	.0523 **	2.97	.2757	0.47	.7474	0.05
Receipt of regular remittances	-1.84	.0932 *	-2.20	.0408 **	-0.11	.8693	0.32
Nº of members with schooling	-0.43	.0786 *	0.01	.9636	0.41	.0625 *	0.69
Household possessions[21]	0.11	.3566	0.05	.7084	-0.15	.0929 *	8.85
Nº of hectares planted	-.003	.0201 **	-0.0003	.8439	0.001	.0952 *	59.9

[21] — The economic standing of a household was based on very gross weighted calculations of household possessions, agriculture production (the total of all hectares planted for all crops) and livestock, also weighted. The possessions variable was based upon the following arithmetic: a value of one (1) for radio, bicycle, improved stove, and mosquito netting, two (2) for an electric generator, moped, household well, plow, cart, and draught animal, and three (3) for and auto, television and refrigerator. The livestock independent variable was calculated as a sum with the following weightings: fowl times .05, sheep and goats times 1, and cattle and horses times 5.

Table I-ii — Results of the Regression Analysis (student interview variables)

Dependent Variables (test scores):	Language		Arithmetic		Local Knowledge		
Independent Variables	Parameter Est. (β)	Prob > |T|	Parameter Est. (β)	Prob > |T|	Parameter Est. (β)	Prob > |T|	Mean Values (s.d.)
$N_{students}$ = 178 (79% total); $N_{schools}$ = 22 (88% of total)							
Intercept	-3.09	.5540	-4.56	.3710	21.72	.0001 ***	---
Age	0.13	.6375	0.41	.1324	0.03	.8424	11.39
Sex — male	1.45	.1615	2.01	.0491 **	1.30	.0363 **	0.48
Variety of school materials for student	1.44	.0306 **	0.81	.2112	-0.18	.6621	5.49
If the child studies at home	7.59	.0037 ***	1.99	.4310	-0.31	.8166	0.93
Save the Children School	9.05	.0001 ***	3.15	.0210 **	-2.48	.0043 ***	
Child says s/he likes school	0.65	.8499	4.13	.2146	1.52	.3930	0.97
Child attended school previously	0.17	.9165	0.68	.6656	-1.04	.3018	0.15
Nº times child absent from schl > 1 mo.	-0.24	.2822	-0.47	.0335 **	-0.07	.5299	0.19
Family sometimes speaks French at home	-1.06	.3058	-0.84	.4099	-0.72	.2499	0.49
Child receives help at home	-1.56	.1649	-0.98	.3790	-0.92	.1802	0.69

Table I-iii — Comparing program and school effects regression model results for the Save the Children aggregate variable

	Language		Mathematics		Local Knowledge	
	Model 1	**Model 2**	**Model 1**	**Model 2**	**Model 1**	**Model 2**
Hshld variables						
R-square	.4291	.6886	.2129	.4509	.1507	.4599
N	176	158	173	155	117	99
Coefficient	7.4	8.18	0.78	-0.82	-1.67	-3.41
Prob > T	.0001 ***	.0064 ***	.4672	.8004	.0116 **	.1328
Student variables						
R-square	.4291	.7199	.1837	.5193	.1753	.4962
N	170	151	167	148	107	88
Coefficient	9.05	12.07	3.15	5.38	-2.48	-1.91
Prob > T	.0001 ***	.0001 ***	.0210 **	.0712 *	.0043 ***	.3356

household data variables, and neither meaningful for the set of student data. The only other independent variable found to have a significant positive effect on student language scores is the variety of school materials (pens, rulers, notebooks, etc.) that a student owns.

Trying to apply common sense to this analysis, several of these results appear counter-intuitive, with negative coefficients where one might otherwise expect a positive relationship. In particular, these are the village under-15 years old enrollment rates, the number of other household members with some level of schooling, the family's regular receipt of financial remittances from a family member and the number of hectares planted. These latter two variables, along with the non-significant relationship of household possessions and livestock (eliminated by the adjusted R-square criteria test) appear to demonstrate that a family's economic wealth does not promote academic success. This result appears even stronger for the arithmetic test scores. Only the negative relationship for the number of hectares planted seems to have a ready explanation: the more a family plants, the more a child's labor is required.

Just as the difference of the means differed for the language and arithmetic test results, so too do the regression analysis results. The Save the Children variable generates ambiguous results for the arithmetic scores, both robust (3.15) and significant (98 percent) for the student data set, but neither when analyzed using the household variables. (Again, this finding is upheld, and in some ways strengthened, by the fixed effects results.) This is not surprising given the finding that the mean scores for the full groups of community and government school students were found to be

statistically equivalent for the two full sample groups. Similarly, and less easily explained, the age variable yielded ambiguous results, while the sex variable was both significant and relatively robust (2.53 and 2.01) for both data sets. While the significant negative impact of prolonged absences on math scores is expected, the lack of significance of this variable on language scores is not. This may also be said of the regression results for the occurrence of spoken French in the household.

The treatment of the data with a fixed effects test also permits an analysis of whether there might be community factors that are either more or less conducive to the program's success, even if overall the program effect remains strong. As a school or group of schools emerges as being highly robust and significant, it can direct both researchers and project managers to seek what it is about the particular village(s) that yield these results. Of course, the same indication may be found by comparing test scores for the different schools.

Table J — Comparison of Means, regression sample & full sample

Variable	Community School		Government School		Total	
	sub-sample	total sample	sub-sample	total sample	sub-sample	total sample
age	12.1 (2.0)	10.8	10.6 (1.1)	11.6	11.4 (1.8)	11.2
sex (% male)	0.49 (0.5)	0.52	0.41 (0.5)	0.57	0.46 (0.5)	0.54
language test score	21.8 (8.1)	22.1 (8.9)	13.2 (5.9)	16.7 (7.3)	18.4 (8.4)	19.1
arithmetic test score	13.8 (7.3)	13.9 (7.9)	10.7 (5.9)	13.2 (6.4)	12.6 (6.9)	13.6
local knowledge test score	19.4 (3.2)	20.0 (3.3)	21.2 (3.4)	20.9 (3.5)	20.2 (3.4)	20.4

Finally, as a sort of confirmation of the fixed effects run, the average values for a few independent variables — test scores, ages and sex (percent male) — were compared for the sub-sample (interviewed students) and full sample (tested students) populations of the community schools, the government schools and the combined groups. (See Table J.) The closeness of the values for the test scores for the community school sample groupings indicates that this was the case, despite the higher sub-sample average age. However, the same confirmation is not possible for the government school sub-sample (and consequently for the total population), for whom the language and arithmetic test scores are sizably lower. This might be attributable to the lower average age and representation of boys for the sub-sample group. While this result might compromise partially the significance and robustness of the Save the Children variable in the regression analyses (described above), it is highly unlikely that it deprives this variable of all, or even most of, its explanatory power. This seems particularly true given the results of the fixed effects test. (The absence of t-tests by which to determine whether these age and sex differences are statistically significant limits requires that these results be viewed as merely suggestive.)

Overall, the statistical search for other factors than the school type that might explain the results represented in Table C, the comparison of mean language and arithmetic test scores for the community and government school students, generated mostly weak relations. Perhaps most importantly, neither socio-economic nor family education factors appear to rob the type of school of any of its impact as an explanatory variable for the students test results. Indeed, this outcome should not be surprising as the selection of schools for the two groups included a purposeful effort to identify communities with similar features, as demonstrated in Table A (except for the decision to include the government schools in the main town of each *arrondissement* included). As indicated above, the village population, the education attainment level for a household and the average number of household French speakers diverge considerably between the two village groups, in all instances favoring the government school families. The fact that these variables are not significant factors in the regression analysis, despite the strong mean differences for the two groups, constitutes further robust evidence that *the relatively successful academic test results of the students in the Save the Children community schools must be attributed to school-related factors and not to village, household or student characteristics.*

Classroom management: a qualitative comparison. The obvious question that emerges from this conclusion is what are the characteristics of the community school model that generate these successful results? Is it the fact of instruction in the local language, the curriculum, the weekly supervision provided by the education assistants, the classroom management style employed by the teachers, or any of the other distinct features? While a statistical, regression-type analysis of this question would surely be interesting, this level of investigation surpasses the scope of the present evaluation. Nor is it evident how such an analysis that dissects out the relative effects of these factors would be organized, at least at present, as there is so little distinction between the relevant variables for the different community schools. It is certainly possible to refer to qualitative observations and investigation to produce hypotheses to explain these results. For example, it seems clear from the high language scores that instruction in Bamanankan plays a strong role, a hypothesis that is defended strongly in the literature (Cummins, *op. cit.*; Walter & Ringenberg, *op. cit.*). It can also be hypothesized that the low education and French levels of the community school teachers and their general inexperience might help explain the relatively low absolute scores on all the tests. (The absolute success of students in Mali's convergent method program — with highly trained teachers in well-equipped schools using the local language in the early years of schooling — could be seen to support this tentative explanation.) The evaluation did involve a more deliberate study of teaching and learning in the classroom, as well as of the different teachers in an effort to bring a greater degree of clarity and understanding as regard the relative functioning of the two school models.

While the evaluators observed several interesting differences in the management and overall comportment of teachers and teaching in the two groups of classrooms, perceived from both pedagogical and affective dimensions, what may have been more striking on first appearance was their apparent sameness. This analysis was derived from the formal classroom observation instrument which the evaluators employed to generate "scores" for various common aspects of classroom management as well as more impressionistic commentary. The "scores" are presented in Table K, below, shown as values representing the average frequency level attributed by the evaluators to each designated pedagogical practice for the classrooms visited: 1 - dominant; 2 -

Table K — Comparison of means: classroom observation scores

	Government Schools N = 28 (in 11 schools)		Community Schools N = 25 (in 11 schools)		δ GS-CS
	Average	s.d.	Average	s.d.	
Teacher-centered style	2.9	(1.1)	4.2	(1.2)	-1.3***
Teacher writes at blackboard with no/little student interaction	3.5	(1.0)	3.9	(1.1)	-0.4
Students work in small groups	4.4	(1.1)	4.9	(0.4)	-0.5
Teacher & students discuss openly	4.8	(0.8)	4.1	(1.5)	0.7
Students perform exercises/tests	2.6	(1.3)	2.7	(1.5)	-0.1
Students copy from blackboard	4.2	(1.1)	4.2	(1.3)	0.0
Teacher presents questions/models for collective class responses	3.5	(1.3)	4.5	(1.1)	-1.0**
Teacher presents questions/models for individual student responses	2.1	(1.1)	2.6	(1.6)	-0.5**
Individual students present responses to the whole class	3.9	(1.1)	3.5	(1.3)	0.4
One student reads aloud	3.6	(1.2)	2.7	(1.2)	0.9**
The full class reads aloud	4.9	(0.3)	5.0	(0.2)	-0.1
Teacher disciplines student/class	3.6	(1.4)	3.9	(0.8)	-0.3
Teacher uses texts and other pedagogical materials	3.1	(1.4)	2.8	(1.7)	0.3
Teacher uses other language — Bamanankan or French	3.8	(1.6)	4.4	(1.2)	-0.6

** — δ near to or greater than 25% of GS average; *** δ equal to 50% of GS average.

frequent; 3 - about half the time; 4 - rarely; and 5 - not at all.[22] While the results of the exercise can only be interpreted as suggestive[23], they do at least approximate an empirical assessment of

[22] — The values presented were generated from one hour-long observation sessions conducted by two (sometimes three) evaluators, usually involving the assessment of two lessons. After, the evaluators compared notes to complete three different observation guides, the third of which served as a more general summary of the other two. This is the one that is compiled here.

[23] — The results of any classroom observation guide cannot be taken automatically as representative of a teacher's classroom management style due to a few basic factors. First, there is virtually no chance of a teacher's employing the full range of his/her techniques or approaches in any single or restricted group of classes. This is especially true when the evaluator has observed only a very limited sample of the full range of topics taught, as was the case with the present evaluation. Second, it should be expected that both the teacher's and the students' performances

instruction by which to compare some standard measures for the two sets of schools. Combined with the more purely qualitative analysis, the evaluators were able to derive a modestly accurate picture of teaching and learning in the two models.

In the government schools, it was apparent that teacher-centered pedagogy prevailed: teachers managed tightly and completely all aspects of classroom activities and interactions, employing mainly conventional rote instructional methods, with much collective and, especially, individual student repetition, virtually total reliance on closed questions, student performance of exercises on their slates or in their notebooks and a clear emphasis on the memorization of facts. All this occurs in an environment controlled by the teacher and exuding discipline and learning as a serious business. The chiefly small differences in most of the mean "scores" presented in Table K seem to show that the community school teachers basically try to emulate their government school counterparts, creating their own disciplined, business-like classroom and adopting many of the rote repetition techniques, memorization and posing of closed questions for individual responses. Such mimicry of the government school teacher may be attributable to two factors. One, this is really the only model of instruction which those teachers with some formal schooling have ever experienced, and consequently one that they believe is validated by convention. Two, the training received by the community school teachers is conducted by official IPN teacher trainers and, more recently, by trainers and teachers from the local government school Inspectorate. While the trainers are aware of the different objectives for the community schools, it is likely that this understanding translates only superficially in most instances into their dispensing to the community school teachers an innovative approach to pedagogy. The materials the community school teachers are trained to use in the classroom are different and supposedly created to promote a more "open," learner-centered pedagogy, but these too are prepared by curriculum developers at the IPN. In this regard, the direct involvement of Save the Children and of colleagues at the National Directorate for Functional Literacy and Applied Linguistics, which has more experience with Bamanankan and bi-lingual education, seems to result in curricular materials that do represent more completely the different learning objectives of the community school model.

Notwithstanding the various explanations for finding so much apparent pedagogical sameness in the two sets of classrooms, the evaluators did uncover evidence of a more "learner-centered" instruction in the community school classrooms, belying a completely faithful imitation by the community school teachers of their government school counterparts. Table K captures this difference most strongly in the very general finding that community school teachers are 50 percent less likely to dominate the classroom interaction by presenting lessons from the front of the classroom to students as passive receptors: *ex cathedra*. They are also about 25 percent less likely to rely on rote repetition from their students of answers to closed questions, whether collectively or individually. On the other hand, they are 25 percent more likely than their government school counterparts to have students read out loud in class and engage their students in some manner of open exchange about 15 percent more often, though still infrequently.

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will be altered by the presence of strangers — the evaluators — in the classroom. Experience of the present evaluator has shown that teachers tend to emphasize in such instances lessons and techniques that favor discipline and the opportunity for the students to demonstrate their mastery. This frequently involves a review of a recent lesson. Finally, every evaluator brings to such observation exercises his or her own biases which must influence these subjective valuations.

Much of this difference can be illustrated with more impressionistic observations of techniques, approaches and factors that were not built explicitly into the formal classroom observation instrument. For one, students in the community school classrooms appeared to ask their teachers for clarifications or to repeat a question or explanation more freely and more often than were government school students; and the teachers always responded, sometimes even inviting such requests from the students. It was also much more common to see community school teachers ask their students open-ended questions, as well as to pose questions or examples that came directly from the local village context. These teachers explained that they occasionally reinforced this latter aspect either by taking their students on field trips into the community, by inviting village members into the classroom, or by sending students to their homes or the wider community to conduct some sort of independent or group research. In many instances, these activities are written directly into the curriculum and described in the *fiches pédagogiques* used by the teachers to deliver the lessons. Such instances were reported as extremely rare by the government school teachers.

Affectively, the community school classrooms exuded an atmosphere that seemed much more conducive to instilling in the students a sense of comfort, curiosity, confidence and commitment to education. While the evaluators also found expressions and other evidence of affection and respect in many of the government school classrooms — both students to teacher and teacher to students —, it seemed much more controlled and cloaked behind an air of discipline. In contrast, the evaluators found in the community school classrooms many seemingly simple behaviors and items that they interpreted as clearly basic and important to the creation of a supportive learning environment. These factors included such things as smiles and laughter shared by the teacher and students, even concerning lessons, the teacher's spending more time in the back or at the sides of the classroom and employing physical contact as encouragement, such as a touch on a student's shoulder, (which reportedly did not exclude occasional instances of corporal punishment), the placement of a ceramic vessel of cold water from which students and the teacher both drink in every classroom, and reports of frequent social contact between the teacher and the student's parents. The absence of these features in the government schools was virtually total.

While none of these behaviors should be surprising given that all the community school teachers originate from the same village as their students, this fact should not be used to minimize the likely strong positive impacts of such a situation. To the contrary, they constitute a very purposeful element of the Save the Children community school model. Although these features cannot be definitively associated with the superior or equal performance of the community school students on the language and mathematics tests, the fact that they appear to yield real learning benefits must be perceived as permitting at least a tentative endorsement of the model.

In making such comparisons, both qualitative and quantitative, it is important to recall that the reported favorable community school results are achieved with teachers who have received no more than primary schooling, if any at all, have received no more than 6 months total of training in pedagogy for young children (some do have a bit more training in adult literacy and other adult extension), on average have been teaching just over three years and are paid typically between about five and ten percent the salary of a government school teacher. In addition, the community school infrastructure is more rustic and materials more makeshift — mimeographed *fiches pédagogiques* as opposed to published textbooks, with one exception (Save the Children does distribute to all students when they begin French *Les Flamboyants*, the official government school

language text). On the other hand, the students to book ratio is lower in the community schools (though no exact figures were gathered), Save the Children ensures that all students have their own basic school instruments (slate, ruler, compass, pens, composition books,...), and the class size tends to be smaller, at least at the lower grade levels. In the rural setting, community school students are also not confronted by the frequent cases of multi-grade classrooms found in rural government schools. Further, with no repeaters in the community schools, students have remained with the same classmates and teacher throughout their full four years of schooling. (See Table L.)

Table L — Basic Teacher & School Characteristics

Characteristics	Community Schools N = 28 teachers in 14 schools[24]	Government Schools N = 17 teachers in 11 schools
Ave. no. of years of teachers' formal schooling	3.52	11.31
% of teachers that are women	18	12
Ave. no. of years teaching	3.25	13.65
Ave. no. of yrs. of tchr's pedagogical training	.36	2 yrs. + in-service
% of tchrs. from same or neighboring village	100	21
Ave. self-reported French ability for teachers	1.25 (out of 3)	3 (out of 3)
% girls' enrollment in school	53.5	32.1
Number of multi-grade classes	none	4 (28.6%)
Frequency of supervision	once a week	2 - 3 times per yr daily by schl. dir.
Frequency of teacher in-service training	twice a year (6 wks.)	irregular

While these factors fail to represent completely the different school models and hence fall short of explaining how the models affect differently the learning process, they do still contribute to an understanding of some of the major distinctions and how these might influence learning. Perhaps most prominently missing from this aspect of the evaluation is a comparative analysis of the two curricula. Also inadequately addressed by the field evaluation were the respective roles of the educational support provided to the two groups of schools and teachers; the education assistants for the community schools and school directors, pedagogic advisors and school inspectors for the government schools. As regards the educational support issue, the present evaluation was able to contrast at least the frequency of contact for the two models. While the Save the Children education assistants visit every school at least once a week, the government

[24] — The sample includes teachers from the partner NGO schools.

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schools' pedagogic advisors and inspectors appear at a school at most once or twice a year. On the other hand, the government school director is expected to supervise and direct his/her teachers on a daily basis. Many of the teachers interviewed indicated that they must show their lesson plans to the director every day and expressed the view that this and other manners of regular support are of real value in helping them to be better educators.

The evaluation also showed that, in general, the Save the Children Education Assistants are in all but one case quite simply ill-prepared to fulfill their pedagogic advisory functions. This is especially true as one considers the extraordinary needs for monitoring and advice of the particular group of teachers they are meant to support, as is obvious from the data in Table L. Having been trained in all but one case (out of five) as adult literacy trainers, the assistants clearly do not possess adequate knowledge in pedagogy for elementary students. It was clear to the evaluators that the assistants are not providing the sort of support and feedback that the teachers (and communities) truly require. The regular presence of this group in the schools is much too valuable a resource to squander by not equipping them suitably to fulfill their functions. Such regular support of the teachers, perhaps more than any other element, may hold the key to the full attainment of the potential of these schools. This is not only true as regards the opportunity to improve instruction and learning in the classroom, but also as relates to the chance to help the community to execute completely its school management role, as noted below.

The deeper, finer level of understanding of the two school models that would be permitted by more complete analysis of the curriculum, the education support capacity and other related mechanisms is undoubtedly important to any comprehensive efforts to improve either or both of the education systems. Indeed, such a study would be a fruitful follow-up to the present study. But for the current effort, the findings and analysis help to satisfy the first of the study's objectives: it has been shown (i) that satisfactory learning is occurring (at least based on norm-referenced criteria), and (ii) that these results may be attributed largely to school-related factors. The list of what these particular factors might be is incomplete, but the present picture of the community school still allows a confirmation of the basic validity of the community school model, which does not mean that many improvements are still needed. And the analysis provided (both above and below) indicates as well at least a few areas at which to start improving the teaching and learning that occurs. This might be sufficient to stimulate a more refined internal (Save the Children and Ministry of Education) assessment and reflection on the design and application of the model's components, leading to the sorts of improvements implied by the present study.

Explaining improved school enrollments. The testimony from the parent focus groups and the individual household interviews suggests that the occurrence of improved school enrollment, retention and attendance is probably most clearly and obviously linked to the fact of the community school's location in the students' home village. There was widespread agreement among the community school parents questioned that the option of keeping children under their own roofs was immensely important, both for the academic and the affective, or family-based, education the parents preferred. "Our children are here, under our eyes and under our control," was a common explanation of parental satisfaction. Parents also evoked their abhorrence of the financial costs of boarding a child in another town or village, particularly as they reported that these arrangements often resulted in their children's being poorly fed, overly worked by the "tutor" and generally mistreated. This situation emerged in the study as the main reason for the

community school villages' previously sending so few children to other villages to attend government school, as well as for the high dropout rate for those who did venture to attend.

Other likely factors include some of the conditions of the community school program. The two- to four-hour school day, the flexible school week (with schools closing on a village's market day, which changes from village to village) and the school year that is adapted, at least somewhat, to the agricultural calendar surely all combine to leave parents less burdened by the absence of their children from their household tasks. (These conditions resulted from the pre-project negotiations between Save the Children and the initial group of villages.) The attraction to the parents of an instruction in Bamanankan concerning topics of local relevance has already been described, which must be supposed to be equally pleasing to the students, whose interest and attention levels are surely more keen when they are actually able to comprehend their lessons. Finally, the factor of "self-selection" by a village may also pertain, as the decision to start a community school requires a purposeful and active commitment by virtually the full village population; such initial commitment understandably carrying over to a determination to keep one's child(ren) in school. Other factors surely also exist.

The community school management role

At one level, the strategy for the local management of community schools seems to be meeting many of the expectations established by Save the Children at the start of the project. Specifically, communities have constructed schools, hired and in most cases ensured continued payment (and often other support) of teachers from their village, recruited and maintained students in equal numbers of boys and girls and have created management structures (*Comités de Gestion*) that are overseeing the general operations of the schools and serving as the main contact on school-related matters with the "outside world"; generally Save the Children. The involvement of the School Management Committee extends in many cases beyond a simple or perfunctory administrative or logistical control of the school's operations, with committee members reporting that they fulfill also to varying degrees a guidance role, providing regular and close supervision of the teacher and the classroom. Despite the inability of most of the members to provide effective pedagogical guidance, several of the committees indicated in the focus group sessions that they often send members to the classroom (in some villages, daily) to lend support to the teacher in various fashions, including overseeing the behavior and general performance of the teacher and the students, providing direction in managing the classroom, and seeing what problems — e.g., absences, material needs, repairs — might require the Committee's or the community's intervention. Similarly, individual community school parents appear to take their role seriously, with over 80 percent indicating on the household survey that they consult the teacher regularly, usually seeking to confirm that their child is attending class, behaving well and pursuing his/her studies assiduously. These contacts with the teacher range from sitting in on class sessions to meeting the teacher out in the community.

A smaller, though still sizable, number of parents (58%) in the government school communities responded that they have contact with their child's teacher or school. While many reported doing this with some regularity, providing similar reasons as the community school parents, most described this contact as involving little more than attending the end-of-year school closing ceremonies, at which the students' year end results are announced. The parents'

association (APE) representatives also described their role in most cases as essentially a passive one, that of responding to diverse requests from the school director. This participation generally includes helping with school recruitment outreach, following up with a family concerning a student's prolonged absence or assisting with the repair or construction of a teacher's home. The APE, and especially individual parents, apparently feels it has no place in the government school classroom. The evaluation did reveal a few cases of APE's actively bringing complaints to the school or school inspectorate; for example, for cases of excessively harsh corporal punishment, lack of books, a crumbling classroom, or a teacher's prolonged, unexcused absence. While important interventions, these instances were almost always reactive and discrete, as compared to the interventions and oversight that the community school management committees report to undertake. The evidence generated in the focus group sessions seems to show that these interactions tend to be much more routine and proactive, integral to both the operations of the school and the relations between the school, the parents and the broader community.

Other evidence generated by the evaluation reveals that to a certain degree the reportedly regular interaction and involvement by the school management committee and community school parents may, from a different perspective, be seen as somewhat superficial. While admiration of the communities' roles in managing their schools is still generally warranted, it should be understood that the quality and degree of execution of the management functions by most Committees varies, sometimes significantly, from one community to another, and there is in several instances considerable room for improvement. Probably the most common (though still not prominent) complaint regarding the community role was that teacher's did not receive their monthly payment on time. In a couple of instances, communities went several months without paying the teachers, requiring the intervention of Save the Children. In contrast, there are other communities that have demonstrated their great appreciation for their teachers by increasing the monthly stipend (in one case more than double the prescribed amount) and by providing numerous other motivations. Most commonly, these involve the use of student labor for such things as gathering straw for home roof repairs and for working in the teachers' fields.

Another central area where Save the Children's ideal for the School Management Committee seems not to have germinated is that of providing inputs to the academic program of the community school. This comment may speak more to the unreasonability (at least at this time) of the original expectation than to the absence of this kind of intervention. It is true that the original curriculum did emerge from a consultation by Save the Children's representatives with several local communities — "What do you want your children to learn?" —, but ongoing modifications or complements to the program that have been initiated at a local level were not evident, except as introduced by a few individual teachers who have brought their own initiative to both the content and presentation of various lessons. In addition, teachers have used the community in different ways to enhance a lesson, usually by class field trips to a local artisan or by sending students to conduct field "research," asking their parents and other community members questions about the village. This strategy is included explicitly, for example, in the formal lessons on Village History. But no approach nor inclination was evident by which to implicate the community or the Committee in a review and revision of the lessons of their children. It should be mentioned, too, that no community seemed bothered by this. The comment stands, though, as the idea seems a valid one, both as a meaningful way to enhance the relevance and quality of the school curriculum and as an important indicator of the degree of involvement of the community in the village school.

Given these criticisms, the implementation in the Spring of 1996 of Save the Children's first School Management Committee Training sessions may be seen as an encouraging recent development.[25]

Graduating from the community school to the government school system: the *passerelle*

Despite the community school students' clearly superior results in language and equal or less bad average scores in arithmetic, the issue of the quality of the education they receive remains uncertain when analyzed under the light of the "*passerelle*." As discussed above, the students' parents, Save the Children and the government have all embraced the aim of the community school's serving as a potential springboard to the government school cycle. Indeed, steps have already begun in the program and the individual classrooms to move towards this end. The most obvious question that must be addressed is how well will the community school program prepare students after six years to perform in a completely French language classroom. A full-blown analysis of the data gathered during the current evaluation is not necessary (nor possible, given that no schools have yet completed a six-year cycle) to conclude that the Save the Children supported community school, as currently set up and operated, does not and cannot provide an adequate training to permit its graduates to continue their schooling entirely in French, at least not on a par with their government school counterparts.

This assertion derives almost entirely from the observation, shared by virtually all those interviewed, that none of the teachers employed by the villages has an adequate level of French to prepare their students for a schooling that is entirely in the metropolitan language.[26] (The community school teachers self-reported that on average they speak French "with difficulty," compared with a unanimous "excellent" self-assessment by government school teachers.) Nor do most of the villages have suitable French-speakers who might help in the classroom to fill this void. The French classes the evaluators did observe in the fourth and third grade community school classes where the transition effort has begun were truly impressive, but can only be judged

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[25] — An idea reportedly borrowed from the World Education community school's Project, implemented in Bamako and Koulikoro, this training was clearly needed; a fact that the Save the Children's Education Assistants (responsible for conducting the training) reported to be all the more evident once the sessions were actually underway. These assistants meet regularly with the Committees (visiting each village school once a week), but it is not clear that these programmed interactions result in the kind of guidance and on-going training by which to help the local entities grow satisfactorily and execute fully their school management reponsibilities. One of the lessons that the Save the Children assistants reported to emerge from the trainings was a general realization that the Committees, as currently constituted, lack the required dynamism to run the community schools adequately. Rather, they said that the members participating in the training (the literate, hence, the younger members) described the Committees as typically organized as more traditional village bodies, with a conservatism of approach that they believed was less suited to the management of a modern, and modernizing institution such as a school; or at least this is the early version of the assistants. Whether this is the case or not, it seems important to take a purposeful and regular approach to training, monitoring and guiding the School Management Committee to fulfill its functions.

[26] — To illustrate this point, the evaluators observed one highly regarded (by the community and Save the Children) fourth grade community school teacher spend fifteen minutes asking his students to go to the blackboard to underline the subject in a imperative statement. We informed the teacher after the lesson, as kindly as possible, that one of the things that makes a sentence imperative is the fact that it has *no* subject. This explained the teacher's own difficulty in his attempts to correct his students' efforts.

as such when acknowledging the low level of French language mastery on the part of the teachers. If the "French connection" issue can be resolved, both the academic test score results and the classroom observations seem to allow the conclusion that the community school graduates are quite well-prepared for continuing their formal education. They appear to have received a solid (at least relative to the government school students) cognitive and academic foundation, which, it can be hypothesized, may be due largely to (i) the fact of their having started their schooling in their maternal language, and (ii) the more conducive, confidence-inspiring learning environment provided in the community-based classroom. While both Save the Children and Ministry of Education officials (local and national) concurred with the evaluators' conclusion that a solid foundation for French learning is being created — as hinted at by the one common French dictation question result —, they also shared the belief that a fully effective transition option will require the participation of teachers fluent in French and trained in bi-lingual pedagogy.[27] How this will be managed and financed has not yet been resolved, though Save the Children and the Ministry of Education are currently discussing different options seriously.

Replicating the model: Is it time to take the show on the road?

Despite the tentative favorable conclusion of the model's relative success, it must be asked if the community school represents an approach that might be adopted by other communities with a similar sort of success. Indeed, as indicated in the introduction to the present report, this is the main question that motivated the evaluation of the Save the Children project. The prospect of divesting much of the fiscal and administrative responsibility for a school to the local community is attractive for two fundamental reasons. On the one hand, by mobilizing private resources it could allow the government to concentrate its national education efforts more strategically and intensively. On the other, adding the community's limited resources to the government's should also help the country to approach the goal of universal basic education on a much shorter time horizon. The findings presented above, showing that the quality of schooling provided by the Save the Children community model at least matches that of the government school system, will likely whet the interest of the government and the donors to consider the model's replicability even further. But one other crucial question related to program sustainability remains: "Is the model's success linked inextricably to its status as a project with outside funding, or would

[27] — Another difficulty that students moving from the community school to the government school classroom may confront relates to the differences, sometimes subtle but no less consequential, in the pedagogy styles found in the two classrooms (described below). At the end of the 1970's, Côte d'Ivoire suspended its decade-old televised primary schooling project in large part because the primary school graduates were unable to adapt to the more structured, rote instruction methods they found in the secondary school, where teachers in turn found this group of students to be too undisciplined and ill-prepared. Indeed, the failure rate of the first graduating cohorts upon completing their first year in secondary school was considerable. Yet, according to different Ministry of Education officials who had been intimately involved with the experiment, this outcome was less a result of poorly educated students — they actually had learned their academic lessons well. Rather, it was a result of poorly prepared secondary school educators, who were not trained to receive the more curious, expressive, dynamic student created by the televised primary schooling program. (Muskin, 1991:345-51) The Save the Children and government education officials working on this transition might wish to anticipate such an outcome with the future community school graduates and take steps to prepare the students and their future teachers for this transition to the second cycle.

community schools initiated in other regions of Mali and without the involvement — financial, technical or administrative — of Save the Children or of another partner yield similar results?"

Three other aspects of the model are considered with the explicit intention of responding to this question. The first of these is to assess the performance of the partner NGOs in launching and supporting community schools in the *cercle* of Bougouni. While Save the Children still maintains a role in the operation of these schools, their involvement is relatively peripheral, other than as a funder (channeling USAID dollars). Although the provision of funding is surely not an insignificant factor, the performance of the local NGOs may still be seen to provide at least a speculative view of the model's performance outside of Kolondiéba and beyond the immediate control of Save the Children. Reference to a similar, completely Malian initiative, also sheds some light on the potential of the community school model as a nationwide effort. The second aspect is that of cost. While the community contribution is surely significant, many other costs associated with the technical operation and administration of the project may, once accounted for openly, demonstrate that the level of overall savings associated with the model is relatively minor. Such a result would likely undermine the government's ability to expand Mali's basic education enrollment rates based on this approach to community involvement. The third aspect is that of efforts taken by communities currently managing community schools to ensure that the community school progroam continues in their village. This determination is somewhat constrained, limited to an assessment of the steps taken, or not, by communities to start a second cycle of schools, as is anticipated by the overall project scheme. A final issue is also considered, constituting more of a philosophical argument. This is the "second-best schooling" argument that seems to crop up every time an alternative approach to schooling is proposed or attempted.

The performance of the local partner NGOs. Three other community school initiatives operating outside of Kolondiéba provide a contemporary window to the model's potential suitability on a national scale: (i) the local partner NGOs that have sub-contracted with Save the Children to promote and support community schools in the neighboring *cercles* of Bougouni and Yanfobila; (ii) World Education's community school project operating in the region of Koulikoro, which resembles the Save the Children project with the one significant exception that they employ professionally trained teachers, paying them a salary between 20,000 and 40,000 CFA ($40 to $80) per month; and (iii) the *Centre d'Education pour le Développement* (CED) pedagogical model and program operated by DNAFLA for the Ministry of Basic Education, which resembles the Save the Children model in virtually every dimension except the organization of the curriculum. The CED is operated in most regions of the country. The evidence by which these efforts are assessed comes primarily from interviews with program managers, except in the case of the partner NGO schools, in three of which the evaluators actually performed the full evaluation protocol. As a result, the following conclusions are presented primarily as speculation.

The most complete information on these three experiences was gathered for the partner NGOs. Interviews with representatives from three of Save the Children's four original partners[28] seem to show that the local NGOs have met with considerable success in their community school expansion efforts. They reported that the responses has been overwhelming, with the demand for

[28] — These are *l'Association Malienne pour la Promotion de la Jeunesse* (AMPJ), ??? (ASG), *le Cabinet de Recherche Actions pour le Developpement Endogene* (CRADE), and *le Groupe d'Action pour le Developpement du Sahel* (GADS).

community schools outstripping by a significant margin their ability to supply materials and support. They also described the participation of the communities once a school has been established as largely admirable, though not without shortcomings, such as slowness in completing school construction and similar problems in paying the teacher's salary on time. Overall, the enthusiasm for the project attributed to the communities by these representatives was confirmed by the teacher and school management committee interviews, although there was a somewhat intangible sense that the communities' appreciation of the fact that they had a school was not matched by a thorough understanding of the project. This is likely attributable at least in part to the fact that the partner NGO community schools were still only in their second year. This same relative newness was felt in the interviews with the NGO representatives, with most of those interviewed in the field (as opposed to in Bamako) having only been with the project for a few months.

The evaluators identified one quite interesting innovation associated with the NGO's approach to the project that may contribute to the model's sustainability and successful eventual diffusion to other regions. The innovation is the formal and regular contact by the partner NGOs with the local Ministry of National Education authorities. This involves essentially informing the local Inspectorate officials of all aspects of project implementation, achieved most simply by sharing with the local Inspector copies of the regular reports the NGOs are required to submit to Save the Children. The NGO representatives described this courtesy as being more than simply social, including as well a very strategic, political dimension. As national institutions, they explained, it is much more important than for an international NGO (such as Save the Children) to demonstrate unequivocally their respect of the authority of the government as regards educational and other decisions in the region. This approach may be interpreted as furthering the idea that the community school model operates as a complementary, integral component of the national education system rather than constituting simply an alternative to the government school. Though these effects cannot be confirmed, the potential benefits of this strategy seem sufficiently promising to compel Save the Children to develop further its own outreach efforts towards the local government education officials.

While the present evaluation did not involve any empirical assessment of the CED or World Education community school initiatives, interviews with administrators from each of these projects did reveal further tentative optimism that national implementation of the model is promising. Most basic to this argument is the simple fact that these two projects are operating with apparent relative success in other regions of Mali; hence, nationalization is already under way. Another reason that these experiences permit further optimism concerning the model's promise is that they seem to have resolved two issues that might otherwise be seen as prohibiting the model's successful proliferation after Save the Children ends its direct involvement. The first of these is curricular and pertains to the one major critique that emerged from the interviews concerning the quality of education dispensed in the Save the Children community schools: that the pedagogical methods employed were not fully suited to the learning levels and cognitive requirements of young children. Rather, some education experts at the Ministry's National Pedagogic Institute and Mali's National Directorate for Functional Literacy and Applied Linguistics (DNAFLA) described the Save the Children modular approach as basically an adaptation for children of the adult literacy programs that Save has operated in the region for several years. These critics perceive a need and an opportunity for a more child-oriented

pedagogy that should yield even greater cognitive and basic academic results. They offered the CED pedagogical model and program as an alternative that Save the Children might wish to adopt. The present evaluation does not yield evidence to confirm or refute this view, yet the question seems of ample significance to motivate Save the Children, the government and participating donors to engage the CED managers and curriculum developers (who are in some instances the same people devising the Save program of study) in discussions by which to see what it might learn from the CED and other related experiences (including that of the convergent methodology program). With the prospect of enhancing the quality of instruction in the Save the Children community schools, this effort should also heighten the model's attractiveness beyond the project area and Save the Children's management.

The second issue may constitute the most serious threat to long-term sustainability suggested by the research, that of the "*motivation*" paid to the teachers. Save the Children's officials, its technical agents in Kolondiéba and the partner NGO representatives all suggested that the only real problem relating to teachers' salaries is that of late payments by some communities. However, there was other evidence that indicated that the extremely low level of this payment may at some point (perhaps soon) cause much more significant consequences for the project. While complaints from teachers concerning low pay may not have been generalized, a few teachers were very blunt in indicating their dissatisfaction about this matter, claiming that they are definitely suffering economically because of their teaching obligations. One teacher said that he'd been enlisted by his community to take over the school while he was away from the village on a business trip. Unaware, and unable to refuse this duty, he is now foregoing significant income from his previous commercial activities in order to meet his teaching obligations. Another teacher reported that his father had threatened to throw him and his wife and children out of the extended family compound if he does not give up teaching. The short-lived strike held by the second year teachers at Kissa in October 1995 clearly had its roots in the low level of remuneration, the sentiment being exacerbated by the apparent tendency among many villages not to provide other manners of incentive as compensation to the teachers. The absence of other support was obviously a particularly sensitive point for the teachers during the month-long start-of-year training sessions, which occur around the end of the harvest season. The speedy, voluntary end to the Kissa strike, in reaction to the proposal by Save the Children to bring the issue to the teachers' communities, was interpreted with satisfaction and admiration by the project managers as an indication of the teachers' recognizing and accepting their respective obligations to their villages and the children. The more bitter renditions of the few teachers who complained to some of the evaluators leaves a different impression: of teachers forced into duty by strong community pressure. This scenario casts many of the teachers more as indentured servants servants of the communities than as willing volunteers.

Notwithstanding these tensions, there is no indication that this bitter view represents the whole or even most of the community school teaching corps. Indeed, several teachers said they had not complaints at all, seeing the money and respect earned, along with their ability to support the development of their village, as sufficient recompense for their efforts. Still, these experiences and testimony imply that a level of 3,000 FCFA per month is not a standard that will help ensure the sustainability of a village school. As the unannounced, month-long departure from his teaching duties by the teacher from Koni-Boundio demonstrated, a school's success rests very squarely on the teacher. While the teacher-community negotiation approach is important, it might

well be considered that the current system disfavors the teacher in this dialogue as s/he really is rarely in a position to say "no" to their villages. Still, several of the teachers interviewed indicated that they would not remain in their post once their present cohort graduated, although it seems likely that more adequate remuneration would influence many, if not most, to change their minds and remain as teachers. The World Education community schools project has demonstrated that it is possible for some communities to pay teachers a reasonable wage. Under this scheme, villages negotiate a salary with unemployed, government trained teachers, *vacataires,* to teach in schools that, in many of its other aspects resemble the Save the Children model. Salaries for teachers in World Education community schools typically run in the vicinity of 20,000 to 40,000 FCFA per month (still considerably lower than the going government wage).

While constituting an alternative strategy of clear merit, it is unlikely that the World Education community school would satisfactorily substitute for the Save the Children model in most of the villages where it presently operates. For one, the use of *vacataires* eliminates, at least on the short-term, what seems to be a central factor in the success of the Save the Children model: the employment of teachers who come from the same village. The World Education community schools also follow the national curriculum, using the official texts and delivering lessons in French. This rejects some of what appear to be other significant variables contributing to the Save the Children model's success. In essence, the World Education school employs the government school instructional program but with local community management. Finally, and most relevantly within the current discussion, the collective testimony of the Save the Children community school villagers indicates that the level of payment enjoyed by the World Education teachers exceeds considerably their available resources. Still, the World Education experience does provide some insight into what the salary coverage potential of villages is in some parts of the country, and this level of remuneration must be appreciated as an important step towards ensuring the sustainability of the community, or indeed any, school model. If the Kissa strike and related individual complaints by teachers are to be taken seriously, which might be prudent, the question of motivation (whether monetary or in-kind) will need to be addressed directly before the model is exported to other regions for implementation, whether by local groups, by the government, or by Save the Children or a similar organization.

Comparing costs for the two school models. The appearance of considerably lower direct costs for the community school model constitutes perhaps the central reason to be impressed by the relatively favorable academic test results: acceptable learning is occurring at a cost that would seem to permit broad replication of the formal fundamental schooling on a nationwide scale. If this impression is truly real, universal basic education seems to be well within the grasp of Mali some time in the next decade. At the crux of the cost differences associated with the community schools are (i) the vastly lower salaries paid to the community school teachers, between 3000 CFA and 7500 CFA monthly *versus* around 60,000 CFA per month, plus benefits, for government school teachers, (ii) the need for fewer teachers (technically, two-thirds) due to the triennial recruitment rhythm[29], (iii) the low-cost classrooms employed with the Save the Children model,

[29] — According to the official format developed by Save the Children, there are meant to be four teachers, — one per cohort, or two per recruitment class — operating during the full six-year cycle of a community school. This contrasts with the common expectation of six teachers over the same six-year cycle — one per grade level — in the government school system. However, this straight technical comparison cannot be evaluated without a few qualifications. For one, many of the government schools visited operate with multi-grade classrooms, and in a few

using local materials for walls and floors instead of concrete and involving the construction of just one classroom; and (iv) the fact that the salaries and the bulk of the construction costs are borne by the local community. The considerably lower teacher salary figure for the community schools is especially significant as teachers' salaries in Mali, as elsewhere in Africa, comprises the bulk of the national education budget; in 1996, these absorbed over 75 percent of Mali's total allocations to primary education.

Further calculations are necessary, however, before it is possible to ascertain if the appearance of the model's greatly lower costs is true. Essentially, this is a matter of seeking for hidden expenses and indirect costs that might counteract the effects of the savings described above and result in total project costs that are essentially equivalent to (or even greater than) the government's expenditures on its primary schools. Unfortunately, the evaluators were unable to generate precise budget and expenditures information as regard the many other administrative, material and technical support aspects of the two programs. Government cost figures were unavailable because the evaluation occurred as the Ministry's Directorate for Financial and Administrative Affairs was in the final stages of preparing an itemized budget for primary schooling. The associated staff were unwilling to share these figures in their preliminary state. The Save the Children school costs were in some cases even more elusive, as these budget items were either spread seamlessly across several different project areas, attributable to several different sources (Save, the communities, families and the Government) or simply not calculated (or at least available for dissemination). Consequently, the comparison of costs between the two models presented in the present evaluation must be seen as mostly suggestive and even as regards some items largely speculative. Future research looking exclusively at the financial question is required to permit more definitive conclusions concerning the costs of replicating the community school model. (Reportedly, USAID's Human Resources and Democracy Division of the Office of Sustainable Development, Bureau for Africa has just completed this research and will be producign a report shortly.)

Notwithstanding, a more casual assessment of these costs (represented in Table M) appears to suggest that the fiscal sides of the two models do balance out in favor of the community school model, largely because of the greatly lower teacher salaries. Despite this yet-to-be-confirmed judgment, it seems from the same assessment that the balance sheet does not favor the Save the Children model on all counts. Rather, the various education delivery costs appear to converge in a few areas and are likely even lower for the government's model in some others. One such area where the cost scale seems to tilt more heavily towards the community school model is that of in-service teacher training. Every community school teacher receives four plus two weeks of in-service training yearly, involving travel to a central sight, at a direct cost — i.e., room and board and cost of materials, but excluding the costs of trainers, planning, etc. — of about 35,000 FCFA (US$ 70) per person. While the actual cost per trainee is likely similar to that of the government's

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instances operate themselves on a biennial recruitment rhythm. In this latter case, the community school would be employing one more teacher. Of course, it must also be considered that only one of the community schools has added a second recruitment class, which would lower the ratio to 2:6. Second, the addition of efficiency as a criterion in this comparison requires that this teachers-per-school variable be substituted by a students-per-teacher basis. While this manner of comparison seems to balance in favor of the government schools, with generally higher student:teacher ratios than in the community schools, this manner of quantitative efficiency in turn must be qualified by the impact of larger class sizes on quality learning. This level of economic analysis surpasses the scope of the present evaluation.

regular in-service training program, the latter does not involve every teacher on an annual basis. Rather, the government employs a cascade approach in its training, by which most teachers receive instruction in new techniques, materials and ideas from their few colleagues who actually attended a formal session. Clearly, the cost impact upon the government should it need to train directly all its teachers twice yearly would be substantial. Yet, to complete this calculation, the cost of pre-service training for the government school teachers, as well as of the several years of formal schooling that the community school teachers do not receive, must also be figured in. Taking an even broader economic perspective, one might wish to figure in as well the opportunity costs for those future teachers while they undergo all that schooling. From this broadened view, the costs of training may tilt again in favor of the community school model, even when considering its possible application on a national scale.

Table M — Estimated Comparison of Costs for the Education Provider

Cost Items	Government Schools	Community Schools
Teacher salaries (CFA/month)	60,000 >>>[30]	3,000-7,5000 <<<
Teacher salaries (size of teaching corps)	>>>	<<<
Building construction, repairs & maintenance	>>>	<<<
Classroom furniture & equipment	=	=
Textbooks	<<	>>
Other pedagogical materials	<<	>>
Teacher training, initial	>>>	<<<
Teacher training, in-service	<<<	>>>
Teacher supervision (external only)	<<<	>>>
(including costs of the school director)	(>>>)	(<<<)
Education system administration	<	>

Another community school cost that implies a much greater level of expenditure should the government adopt the model for implementation on a national scale is that of teacher supervision. The government school teachers and parent groups asserted that they typically see an inspector or pedagogic advisor no more than once or twice a year, at least at the school, and in some cases

[30] — The use of the greater than and less than symbols is meant to indicate an approximate comparison between the costs associated with the particular line item, with three of the signs indicating much greater/much less costs, two indicating somewhat greater or less costs, and one suggesting minor differences in the costs. The equal sign — "=" — indicates an assumption of basically equal costs.

they reported no visits. In stark contrast, the community school teachers and management committees receive a visit from a Save the Children education assistant on a weekly basis.[31] (The partner NGO administrators reported that their education assistants sometimes visit their project schools several times in a week.) This support and supervision is buttressed further by other layers of technical and administrative assistance at both the *arrondissement* and *cercle* levels, though these may be essentially replicated (or even surpassed) within the government's education system. While endeavoring this level of supervision throughout the government education system would be financially prohibitive, the value of such regular contact with a pedagogic advisor seems from the current evaluation findings and the broader literature (Heneveld, 1994) to be hard to contest. (It should be noted that this intensive level of pedagogic support is less urgent in the government school classroom as (i) the teachers are more highly trained and (ii) the school directors are tasked with providing their staff with daily guidance and supervision.) As other schedules, perhaps bi-weekly or monthly visits, may be considered, at least for more experienced teachers, this cost could become more manageable and should still constitute a net savings when compared to the massive savings gained by the communities' bearing the costs of teacher salaries. A net savings might also be perceived if an education assistant's salary and maintenance costs (e.g., transportation) is weighed against the salary of the several school directors whose supervisory and advisory functions s/he is replacing.

One last expenditure absorbed by Save the Children that very directly implies a greater cost burden is pedagogical materials. While in the government system, students typically purchase their own notebooks, pens, rulers, etc., these are all provided free of charge by the project to community school students. This imbalance could easily be negated as the model moves to national scale by simply returning the burden of purchasing these materials back to the families or the community.

Other costs of the two models seem to balance out more or less. These include such things as texts, school furniture, basic equipment and administration. As regards texts, while Save the Children currently guarantees that all students have their own books, these are fewer in number and of a more economical quality than in the government school and may consequently still imply a somewhat lesser cost, especially if it is considered that a one book-one student policy should be respected. Indeed, the whole idea of savings in certain areas imply directly the ability to spend in others. In aspiring to universal basic education, the thinking is that these savings will be directed toward the quantitative objective of more schools. However, the success of the community school model should not be mistaken as simply a matter of maintaining quality while cutting costs. Rather, it is important to acknowledge that ensuring quality implies that some of these savings must also be directed strategically towards crucial pedagogic inputs. Textbooks might fruitfully be seen as one of these.

The decision to replicate the community school model will be made as it is determined that any additional costs associated with these inputs are outweighed by the ability to divert most of

[31] — In the government schools, the school director is expected to provide daily supervision and support to the teaching staff. While this has no apparent implications in the form of added direct costs, it may generate an impact upon the quality of teaching. When the director is a dynamic, engaged counselor to his/her teachers, the effect on learning can be great and positive. On the other hand, the expectation that a school director also spend meaningful time observing and supporting the other teachers is likely to detract from the director's own classroom teaching.

the savings towards new schools. Table M seems to suggest that this is the case, though the need for empirical data is acute. As the financial involvement of the local communities remains a factor, this conclusion appears to be even more secure.

Initiating a second community school cycle. Most basically, the sustainability of the Save the Children Community Schools Project would seem to reside upon an affirmative response to the question: Are villages desirous of their community schools' continuing after the graduation of the inaugural pair of cohorts? Looking just at the experience of these villages, the prospect for the perpetuation of these schools seems unlikely. Not one of the four fourth year community schools had initiated a new year one with a new recruitment of 60 students, even though this is a component of Save the Children's fundamental project scheme. Nor was this planned by any of the villages with schools in their third year. Only the village of Dontéréké had added a second school, which it did following a different rhythm, happening in the year immediately following the start of its first school.

Is this an indication that the villagers are unhappy with the community schools? Such a conclusion seems implausible. Without exception, the village leaders, the school management committees and individual parents evoked great satisfaction with virtually every aspect of the school: the program, the fact of instruction in Bamanankan, the location, the teacher's performance, the materials, the relationship with Save the Children,... More objective indicators of this contentment include the villager's continued willingness to pay the teacher's *motivation* (in most cases on time and in several instances at a rate above the minimum set in the agreement with Save the Children), the seriousness with which the school management committee's fulfill their monitoring and other functions, and the high persistence and attendance rates of their children (higher than in the government schools), as just a few examples.

A more likely explanation for the failure of the communities to initiate a new cycle would seem to be found among structural factors. These relate directly to the management of the project by Save the Children on the one hand and to (speculated) family-level decision-making on the other. As pertains to project management, Save the Children's education assistants and program directors have reportedly devoted little time to working with the present group of communities to consider, let alone to plan, the initiation of a second community school and recruitment class (personal communication with Peter Laugharn, Save the Children/Mali's country director; 1997). Apparently, this is a question — such as the addition of French or the extension of the curriculum to six years — to which the project committed without having previously defined a specific strategy. Rather, Save the Children has given more attention to the expansion of the project to new villages. This seems imprudent as the importance and challenges of a currently enlisted village's starting a new cycle are every bit as crucial (and on a certain level, more so) to the long-range well-being and sustainability of the project as is the initiation of schools in new villages. Reaching the goal of universal coverage quickly may be more likely following the latter scenario, but remaining at that target depends primarily upon Save the Children's helping the communities with schools to commit and figure out how to keep the cycle going. This surely requires a concerted, purposeful effort on the part of Save the Children.

The speculated family-level factor suggests that no new recruitment has occurred because there is no immediate demand for this. According to the testimony of the school management committees, virtually all households in most villages were able to send at least one child to the community school. In one village where this was not the case, in Dontéréké, a second school was

started in the very next year to remedy the situation. Maybe one or two children in formal school at a time is enough for a family as this may be all the children it feels needs formal schooling? Alternatively, this may be all a family is willing or able to pay for at any one time or all that it is willing to liberate from household chores or other such requirements? It is important to remember that many if not most of the villages also operate koranic schools, so the families have what they consider viable alternatives.

One may also hypothesize that the communities are looking at the completion of the full six-year cycle as marking the time to undertake a new recruitment. If a three-year recruitment cycle was expected when a full cycle was set at just three years, it makes sense that the extension of the school program to six years would also postpone the recruitment exercise another three years. A second, less optimistic but perhaps more realistic hypothesis may be that the villagers are waiting to see what benefits derive to their children, families and villages as a result of the operation of a community school. Only after the families and the villages can appreciate the ultimate results of this experiment will they be in a position to assess legitimately their willingness to invest more fully by sending more or all of their children to the formal school. Their satisfaction is clear and seems sincere, and the initial indicators of positive impacts are promising, but it is still just a matter of relatively young kids. Even if this patience is subconscious, the possibility that they are postponing a decision to proceed until all the evidence is gathered may be real.

Notwithstanding, the question of why no new schools have yet come on board warrants serious consideration, which Save the Children and the government might best choose to take up directly with the communities. It may simply be a matter of their not understanding that this option exists. It may also be that they don't feel a need to send more children to school yet. Or it may be that they are waiting as they evaluate patiently whether the short-term positive effects truly yield long-term rewards that justify continued investments, of money and time, into the school. Least likely seems the possible explanation that they do not want the school to continue; if this were the case, the current schools should not be able to boast of such high persistence rates. (The one school that does not fit this description, Koloni-Boundio, experienced several traumas that would seem to explain more strongly their high abandonment rate, notably the death of one teacher and the temporary abandonment of the other.)

Without settling the question of sustainability here, the range of factors surrounding the question seem sufficiently compelling to encourage Save the Children and the government to treat the matter of a new recruitment and classroom directly, strategically and optimistically with the current communities. These discussions might occur at the same time as they try to address the situation of the low teacher payment, the general responsibilities of the school management committees, and the other issues related to the current and long-term well-being and quality of the community schools.

The "second-best schooling" argument. Notwithstanding the evident satisfaction of the communities, the apparent savings and the superior or equal results by the community school students on the academic tests, many will base their argument almost exclusively on the current absence of a guaranteed *passerelle* option, concluding that this situation qualifies the community school education as being of inferior quality? While the government, Save the Children and the communities do seem to be focusing so much attention on the idea of the *passerelle*, it is crucial not to lose sight of the fact that this issue will really only concerns a relatively small portion of all the students who will complete formal school. The large majority of primary school completers in

Mali — whether in village or government schools — will not occupy places in the second cycle, moving on to grade seven, despite an official government policy to offer spaces to all sixth grade graduates. (In 1988, only 44 percent of grade six completers in Mali to continued their formal schooling. The 1990 figure for primary school entrants to proceed to the next level of formal education was half that amount, 22 percent (UNDP, 1994: 157).) For this group, a complete and meaningful (i.e., locally relevant) education is equally, if not more, important. Acknowledgment of this more likely outcome was implicit in the testimony offered in the community school parent focus groups, where they voiced their hopes that their children acquire at the very least a foundation in reading and writing Bamanankan and in arithmetic. This view is represented empirically in the comparison of the aspirations the two groups of parents have for their children upon completing their schooling (see Table G).

Respecting these wishes and the reality of the national education context, two compatible options must be considered and developed, promoting two different sets of outcomes; one for the majority of children for whom the community school is a terminal formal cycle, the other for the minority, who will have a chance to continue their formal education at higher levels. The latter group is headed toward more schooling, so these students will need fully trained teachers who can instruct them in academic French and prepare them for schools with competitive entry. The selection of these students may occur with absolute measures (especially, test scores) as well as using more idiosyncratic criteria that each village may choose to determine for itself. The first group must aspire to future education that will be of a nonformal or a self-learning nature. The big difficulty is that it is often difficult, except at the extremes, to identify these two populations until the formal selection process (i.e., schooling and testing) begins. This evokes a further discussion concerning when and how to begin preparing students for the eventual transition from the community school to the government school. Such a solution also resurrects the vastly contentious issue of a bifurcated education system — "*une éducation à deux vitesses,*" literally, an education at two speeds — which has typically been abhorrent to both national and international education planners and policy-makers, as well as to parents.

This view was expressed strongly in an interview with the education officer of one of the major international development partners in Bamako. This individual did not doubt the value of the education offered to the children attending the community schools, especially given their current alternative of no formal school-based education. However, he was quite clear in his conviction that the Government of Mali should be providing to all of its youth the same sort of schooling. This is necessary so that all might have access to the same benefits of modern society, those presently reserved primarily, and inequitably, for the children of the civil servants and other economically privileged families based in Bamako and the regional capitals. The debate evoked by this perspective is extremely complex and exceeds considerably the scope of the present study. Notwithstanding, the researchers hope and believe that the findings of the Kolondiéba community schools evaluation will demonstrate that both the education and the aspirations associated by the villagers with the Save the Children model represent in the minds of the affected populations considerable progress and a satisfactory status quo (at least for now). Further, most of the affected communities seem to see this model as a preferable option to that of the formal school, which often acts as little more than a drain, funneling their children away from their homes to the city lights. A perspective that the position taken by the education officer seems to ignore or discount is that of the villager — parent and child — who is happier with a slower-paced,

purposeful development of his or her home community, uninterested in moving his/her children toward the "modern," more consumer-oriented life of the civil servant in Bamako; especially when this latter situation is most likely to engender deception and further poverty. (He stated categorically that his institution Bank would not invest in a Save the Children model community school.) Also absent from his argument is the need to pace educational development with development in other sectors. There is no doubt that Mali requires a considerable population of better educated, more productive rural farmers. A better educated farmer implies a very different education than a better educated urban salaried worker. And a more productive farmer depends on much more than just more and "improved" education.

The "second-best" debate begs very loudly the "quality" question: "What type of education is truly of quality for a given context, for a given set of aspirations, for a given set of likely outcomes, and at a given time in the evolution of a community?" While no collection of research findings will yield a definitive response to this question, the results of the Save the Children community school project evaluation will at least hopefully open other education researchers, planners and policy-makers to the logic and apparent benefits of this sort of model. For one, the level of academic learning attained by the students is clearly acceptable, at least when compared to the popularly recognized norm of the government schools. Two, these schools exist where there would be no school at all; *at this point in time, it is not a choice between a community and a government school, but between a community school and no school.* Three, the level of active parental and broader community interest and support in the community school appears to be greater, arguably yielding benefits both at the school and the individual student levels. Four, the community school program and results seem to correspond very well to the aspirations voiced by the parents — basic arithmetic, basic literacy in Bamanankan and in French (eventually), locally relevant skills and knowledge, respect, discipline, a sense of enterprise and a love of home —, as well as to the most likely education future awaiting the large majority of formal school students, further nonformal training and self-learning; much better than is the case in the government schools. And five, the level of resources required — both financial and human — seem to be of a level that offer a realistic hope of replicating this model extensively, permitting the achievement of universal primary schooling by early in the next decade.

The *éducation à deux vitesses* analogy is really quite apt. On a level road, starting from the same point at the same time, forcing one driver to accelerate in a lower gear than his/her competitor — or colleague — is truly unfair. However, Mali's many students are neither on roads of like conditions or with similar slopes, starting their journey at the same time, nor able to or necessarily interested in following the same routes to their final destinations. Even the destinations, at least over the medium-term, are often not the same, as evident in the frequent testimony of parents' hoping their children will remain in the village. Given all these differences, it would be folly or even cynical to encourage or force the rural "drivers" to attempt to proceed in the same gear as their urban counterparts.

Conclusion

The evaluation of the Save the Children community schools has shown that the project has succeeded in providing a basic education of a "quality" that resembles that of the government school system. Community school students are learning arithmetic at a level that is equivalent to

that of government school students in the same region. Further, the community school students are learning to read and write, with comprehension, in Bamanankan at a level that exceeds considerably their government school counterparts' ability in French. The evaluation findings also hint that this solid acquisition of Bamanankan literacy will provide the students with a sound foundation as they proceed to learning in French; hardly a new discovery (cf. Cummins, *op. cit.*). The findings on these students' assimilation of knowledge of their village and broader social and economic contexts were less encouraging, at least as measured by the test, though it may be too soon to render a definitive judgment on this aspect of the project. As with mathematics, though, the community school students did no worse than their government school counterparts, and in some ways seemed to surpass them.

Regarding the project's objective of fostering local community control of the school, the evidence permits again a qualified positive assessment. The level of involvement and interest on the part of the community school parents and management committees seemed greater in several aspects than in the government school communities, evident in both the quantity and types of participation the groups described and in their ability to articulate clearly what their roles are. Yet, "more" in this case still falls shy of "lots," as the work of the community school management committees and the level of parental engagement remain superficial in a few of the ways anticipated by the model. The evaluators did not find one committee that it could attest with confidence would be able to continue their school in the absence of Save the Children. While such a target may not yet be realistic, it is relevant to assess what Save the Children and the communities are doing strategically to move the communities to this point over the medium-term. The past year saw the first deliberate effort by Save the Children in this regard, conducting several day training sessions to prepare the committees for strengthening and expanding their management roles and capacities. This is important both for the long-term sustainability of the Save the Children community schools and, perhaps more crucially, for the possible eventual diffusion of the model on a nationwide scale.

So is it time to "take the show on the road?" If by this it is meant that the model should be replicated on a nationwide scale, the answer is "no." If it is meant instead that it would be worthwhile to introduce the model in other parts of the country on an expanded pilot, experimental basis, the answer is "sure." The great enthusiasm by which communities in the *arrondissements* bordering Kolondiéba are adopting the model stands as partial validation of this assertion. The results of the evaluation complete the argument: learning is occurring and the school management committees are fulfilling the basic elements of their duties and growing further into these roles.

Still, a few important questions remain, the answers to any one or group of which are crucial to determining the true prospects of program sustainability. For one, both Save the Children and the government are trying vigorously to figure out how to move the community school students from the Bamanankan classrooms to the government school French classrooms. The current system will not permit this.[32] Ostensibly, this is primarily a matter of the students' mastering

[32] — While Save the Children and the government are exploring a few options by which to achieve this objective — e.g., establishing transitional feeder schools in centrally located villages —, these all entail some aspects that the community school model was designed to remedy. Among these are the need to send children away to continue their schooling, with all the problems associated with boarding, losing children's help around the house, a schooling for rural-urban migration, and so on. On the other hand, the fact that these children will be older, fewer,

French, though as the Côte d'Ivoire case demonstrates, the style of learning may also play an important role (Muskin, 1991: 345-51). Another question, and one that it is not yet possible to study, is whether the community school model will work as well at the fifth and sixth year levels, where the teachers' capabilities will be more greatly challenged by a more advanced curriculum and by a greater reliance on French as the medium of instruction. Only time will truly tell, but these issues should constitute the topics of both on-going monitoring and specific evaluations, as well as of a regular dialogue between the many project partners — Save the Children, the government, the teachers and the communities — in order to determine how to proceed with the model's continuous evolution.

As regards costs, a few other questions arise: How long will teachers accept such low salaries for their efforts? The evidence suggests not very long. How would some of the hidden costs, presently absorbed by Save the Children's project management — e.g., the education assistants' salaries and operating expenses, and the project's Bamako-based administration —, be covered by the regional or national government? Relatedly, what other roles will the government adopt from Save the Children? With responsibility for teacher training and materials development, the government already executes a significant share of the operation. The major remaining function for the Ministry to adopt is that of teacher monitoring and support, hardly a trivial component, as has been shown. Finally, will the village school management committees be able to fulfill their full responsibilities in the absence of the intensive oversight currently provided by Save the Children.

More abstractly, the durability of the demonstrated positive effects of the community schools must be shown to withstand the test of the Hawthorn effect: Are these results simply a result of the involvement of an international organization? While an irrefutable denial or proof of this position is impossible, both the successful diffusion of the model by the Malian partner NGOs and the positive efforts of the Ministry's CED project (*Centres d'Education pour le Développement*) suggest that there is more than a Hawthorn effect at work here. In addition, the Kolondiéba project involves both interventions and differences in performance that are light-years (pun intended) more dramatic and complex than the context in which Hawthorn demonstrated his effect (Homans, 1965).

While these questions are clearly important and must be addressed directly and strategically before expanding the model on a major scale, they should not be used as a reason to criticize, and least of all to abolish or completely overhaul, the Save the Children community school model. Rather, as the majority of the parents anticipated, a basic schooling in Bamanankan (especially with some rudimentary French literacy) should yield considerable benefits for their children, for themselves and for the broader community, and they have demonstrated both verbally and in their actions a strong commitment to support this manner of education. To lose the community school would plunge these communities back into prevalent school-based ignorance, at least until that far distant time that the government is able to establish and operate schools in all of the country's villages, and offer most of these primary completers places in secondary school, and employ most of them in the modern sector. A solution to the *passerelle* will be found, as may solutions to the

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and likely pre-selected because of their demonstrated academic prowess may make these sacrifices more palatable, especially if those children not benefiting from the *passerelle* option are not deprived of opportunities to learn French and continue their education, at least through grade six.

other fundamental questions, but the true future measure of the model's success will be in (i) the productive and social options the community schools' graduates pursue and develop as they enter actively the social and economic spheres of their villages and (ii) the villagers' demonstrating their appreciation for these graduates by continuing to support and manage the community school.

To be sure, the attainment of these two outcomes will require progress in many sectors other than in schooling alone. The school graduates must find legitimate, productive, satisfactory prospects to which to apply their school-acquired knowledge and talents — which situation depends equally upon the village's, region's and country's social and economic institutions. They must also find a variety of nonformal education, on-going learning opportunity by which to continue to grow, which options tend to expand considerably for those with literacy, numeracy and other academic skills. The evaluation has given some indication that the multi-sectoral development strategy employed by Save the Children is particularly well-suited to this scenario.

Finally, as regards the second outcome, significant negotiation and planning by, jointly, Save the Children, the government and each local community will also be critical. Sustainability will not just be a matter of "proper" program design and implementation. It will also be the result of purposeful, thorough discussions and action as the time of outside support begins to wind down. Surely some schools will fold. The hypothesis that results from this study is that more will succeed, assuming that the major tactical questions mentioned above are answered satisfactorily.

In conclusion, the Save the Children community schools project seems clearly to illuminate a way to bring an education of quality to a majority of the population. The model is one that seems to warrant widespread dissemination, but only after some important issues are rectified. The initiative has plotted out an ambitious trajectory and continues to evolve with all the growing pains that might be expected.

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